The Dissertation Committee for Michael Jackson Craigue certifies that this is the approved version of the following dissertation:

LARGE EDUCATIONAL ENDOWMENT MANAGEMENT PRACTICES: A COMPARATIVE ANALYSIS

Committee:

William F. Lasher, Supervisor

V.R. Cardozier

James P. Duncan

Norvell W. Northcutt

Laura T. Starks

LARGE EDUCATIONAL ENDOWMENT MANAGEMENT PRACTICES: A COMPARATIVE ANALYSIS

by

Michael Jackson Craigue, B.A., M.A.

Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

December, 2003

Dedication

For my parents

Acknowledgements

Several investment management professionals and university administrators contributed invaluable knowledge and information, without which this dissertation would have been impossible. The author would also like to acknowledge the guidance and advice provided by all members of the dissertation committee, especially William F. Lasher.

LARGE EDUCATIONAL ENDOWMENT MANAGEMENT PRACTICES: A COMPARATIVE ANALYSIS

Publication No.____________

Michael Jackson Craigue, Ph.D.
The University of Texas at Austin, 2003

Supervisor: William F. Lasher

Management practices at investment management companies serving the largest endowments at institutions of higher education differ markedly from such practices at institutions with smaller endowments. Moreover, they differ from management practices in place for other, similarly-sized endowments outside of higher education, because of the unique circumstances of higher education. These management practices include the overall organization of the investment companies, portfolio composition management, and the creation and enforcement of investment and spending policies and strategies. In

this multiple site case study, the research examined three such investment management companies: the University of Texas Investment Management Company, Duke University Management Company, and Harvard Management Company. The study found considerable variation in the management practices among the three companies, especially with respect to the extent to which funds were managed internally or externally. Further, the three investment management companies are organizationally and physically separated from the educational institutions they serve; this raises interesting questions about whether such structural separation is appropriate for both private and public universities, given the differing degree of external involvement in institutional affairs.

Table of Contents

Chapter 1: Introduction and Statement of the Problem

INTRODUCTION

Management practices in place at investment companies serving the largest endowments at institutions of higher education differ markedly from such practices at institutions with smaller endowments. Moreover, they differ from management practices in place for other, similarly sized endowments outside of higher education, because of the unique circumstances of higher education. These management practices include the overall organization of the investment companies, portfolio composition management, and the creation and enforcement of investment and spending policies and strategies.

The primary focus of this research was on the investment management entities of the University of Texas System, Duke University, and Harvard University. These institutions were chosen because of the large size of their endowments and because of the similar nature of their investment management entities. In addition, the University of Texas System patterned the formation of its endowment management company on that of Duke University, and Duke University patterned the formation of its endowment management company on that of Harvard University. The University of Texas System is the only public institution included in this group, in part because it was the first public university system to form a separate investment management company. Further, it was the largest public institution with a separate investment management company, and its endowment was comparable in size to the other members of the group. A recent history of the management of the endowment of Yale University (Swensen, 2000) provided an archetype against which the other institutions in this study were compared.

Looking toward the immediate and long-term future, and with the dot-com boom and subsequent bust over the past several years in mind, how well-prepared are institutions of higher education to endure a prolonged bear market, given the role of endowment earnings in meeting operational expenses? Will it be enough to follow existing spending policies as they currently apply in years of lean capital appreciation? Or are the policies that provided for such dramatic returns in recent years insufficient to shepherd these funds through difficult economic times?

STATEMENT OF THE PROBLEM

Investment management practices are increasingly important as institutions of higher education amass ever larger fortunes, and as ordinary citizens become more involved in, and informed about, the variety of investment instruments available, ranging from stocks and bonds to private investments, money market funds, real estate, derivative instruments, hedge funds, and various alternative investments. The relatively recent empowerment of ordinary citizens to trade their own investment portfolios in the securities markets, just as readily as they used to deposit and withdraw funds from their bank accounts, increases the likelihood that investment management strategies of institutions of higher education will be scrutinized by more and more donors, not just the wealthy ones. Such scrutiny is even more pronounced at large public institutions, such as the University of Texas System.

It is therefore beneficial to determine what these management practices are, whether they are likely to be generalizable and applicable to smaller educational endowments, and whether there is significant differentiation in management practices even within the rarefied strata of the largest educational endowments, some of which are valued in the neighborhood of $10 billion. It is also useful to determine how and why these large educational endowments are managed differently than other funds of comparable size outside higher education, to see whether non-educational fund management offers any techniques or strategies that might be of use in higher education. (This analysis of endowment management outside higher education is brief, but an effort has been made to identify any practices conspicuous by their absence from higher education endowment management.) Further, it is important to evaluate all of these policies with respect to ethical considerations, especially regarding investments that might conflict with the mission and goals of the universities being served by these endowments.

RESEARCH QUESTIONS

The primary research questions that drove this study were as follows: What are the differences in organizational structures and in management practices for the largest higher education endowments versus those at institutions with smaller endowments? How are institutional investment policies constructed to achieve the goals of the endowment fund, including capital preservation and growth, a steady revenue stream, and ensuring an ethical standard consistent with the mission and goals of the institutions they serve? What considerations led to the formation of the University of Texas Investment Management Company (UTIMCO) as the first separate entity responsible for managing endowment funds on behalf of a public university system?

SCOPE AND LIMITATIONS OF THE STUDY

Given the greater emphasis on UTIMCO versus HMC and DUMAC in Chapter 4, it could reasonably be argued that this work represents a single case study on UTIMCO, including significant comparative data from DUMAC and HMC. On the other hand, the rest of the work is intended to balance the treatment of the three entities such that useful comparisons can be made for large educational endowment management in general.

This study did not focus on the raising of funds *per se*. Fund raising was addressed indirectly in connection with the relationship between the fund raising function and the investment management function.

Several topics briefly introduced in this study could be expanded upon in much greater detail: Modern Portfolio Theory, the Uniform Management of Institutional Funds Act (UMIFA), and alternative investments could each be treated in considerable detail. This study was not intended to be an introduction to investment management in general; rather it was targeted specifically at three of the largest educational endowments in the United States.

This study considered management practices at three of the largest educational endowments in the United States: the University of Texas System, Duke University, and Harvard University. The management of the Yale University endowment served as a point of comparison, since a fairly detailed book on investment management practices at Yale had already been written (Swensen, 2000). The present study was qualitative in nature, in that it was an in-depth analysis of a small number of institutions. A statistical analysis treating a large number of medium-sized institutions was completed in 1999 (Bruce, 1999), and the present study represents an addition to the overall literature on educational endowments. Since the work of Bruce dealt with institutions whose endowments ranged from $100 to $400 million, this additional research on larger endowments is needed so that students, scholars, and administrators in higher education will have additional tools at their disposal to make informed recommendations and decisions about ensuring the fiscal health of their institutions. This study made use of articles, books, electronic resources, and personal interviews and correspondence with endowment management professionals at the institutions being analyzed.

ORGANIZATION OF THE STUDY

Chapter II contains a selective review of the literature on endowment management, driven largely by the excellent literature review conducted by Bruce (1999) and informed by Swensen (2000).

Chapter III describes the research methodology of this study and explains why a qualitative approach was chosen.

Chapter IV explains the results of the study, focusing primarily on interviews conducted with several professionals in the fields of investment management and higher education.

Chapter V includes an analysis and critique of the findings of the study, as well as recommendations for further study.

Appendix A defines the different sorts of endowments and similar funds.

Appendix B provides a glossary of investment management terms deemed to be most relevant to endowment management in higher education.

Appendix C contains the interview protocol used at each interview.

Chapter 2: Review of the Literature

Historical Context

Conversations with colleagues about this research project inevitably involved questions about the origins of the endowment funds at the institutions studied; before identifying some of the more salient literature on endowment management, let us begin with a brief account of the early days of the endowments at Harvard, Duke, and the University of Texas.

Harvard University's Endowment

The wealth of educational institutions in the United States accumulated slowly. Though Rudolph (1990, p. 4) and Mather (1702/1820, p. 4) differ somewhat on the precise dates, the Massachusetts General Court made an initial allocation of £400 on or about September 8, 1636, and the same Court passed the legislative act creating the precursor of Harvard College on or about October 28, 1636. Two years later, while dying from consumption (Mather, 1702/1820, p. 4), John Harvard bequeathed "£779 17s 2d" from his estate, prompting the renaming of the institution in his name. That gift from John Harvard, however, was “spent rather than invested” (Land, 1936, p. xi). In 1640 the Court “granted to Harvard College, in perpetuity, the right of ferry [i.e., the right to collect tolls for passage] between Charlestown and Boston” which was “…regarded and intended to meet the growing wants of an institution…” (Eliot, 1848, p. 12; see also 36 U.S. 420 (1837) (USSC+)).

By 1833 Harvard “received its last grant from any public body,” and by June, 1935, its invested funds totaled over $128,000,000. Proceeds from those invested funds, when combined with gifts, provided full support for Harvard (Land, 1936, p. xi). But Brubacher and Rudy note that, even by the beginning of the nineteenth century, the estimated total productive funds of all institutions of higher learning in the United States was less than half a million dollars (1977, p.377).

During the roughly 40-year tenure of Harvard President Charles W. Eliot between 1868-1909, the endowment grew from $2.3 to $22.5 million (Harvard College, 2001).

Harvard Management Company (HMC) was founded in 1974 as a wholly owned subsidiary of Harvard

University, charged with the task of managing Harvard’s endowment, pension, working capital, and planned giving accounts; as of this writing it had a staff of 175, with a 13-member Board of Directors appointed by the President and Fellows of Harvard. The Chief Executive Officer of HMC reported directly to the HMC Board, and reporting to the CEO were department heads in Trusts & Gifts, External Management, Domestic Equity, Foreign Equity, Emerging Markets, Commodities, Domestic Bonds, and Foreign Bonds. Administrative departments within HMC included a Chief Operations Officer, a Chief Information Officer, and a Chief Risk Officer (HMC, 2002). As of June 30, 2001, the value of Harvard’s endowment was $17,950,843,000 (Chronicle of Higher Education Almanac 2002-2003, August 30, 2002, p. 35).

Duke University’s Endowment

North Carolina’s tobacco magnate Washington Duke gave some of the most substantial early gifts to Trinity College in the 1890’s. In recognition of the Duke family’s continued contributions toward the institution and James B. Duke’s creation of The Duke Endowment in 1924, the institution was renamed Duke

University. The initial $40 million Duke Endowment was created to benefit “hospitals, orphanages, the Methodist Church, three colleges, and a university built around Trinity College,” according to Duke University Archivist William E. King (King, 2001, p.1).

While some proceeds continue to flow to Duke University (among other recipients) from the Duke Endowment, there exists a separate, internal endowment designated exclusively for the benefit of Duke University. Duke University’s Board of Trustees created the Duke University Management Company (DUMAC) in 1989 as a “separate, non-profit support corporation of Duke University” with sole responsibility for managing the investment assets of that endowment (Duke University Management Company, 2002).

As of March, 2003, internal responsibilities at DUMAC were divided among three organizational groups: (1) public investments, (2) private investments, and (3) finance and administration. A 10-member Board of Directors governed DUMAC’s 25 employees; six of those Directors were Duke University Trustees and/or investment management professionals. Four *ex-officio* members of the DUMAC Board of Directors included the Chairman of the Board of Trustees of Duke University, the President of Duke University, the President of DUMAC, and the Executive Vice President of the University. The 10-member Board met quarterly and the Board's Executive Committee held monthly meetings. Major endowment pools managed by DUMAC included the Long-Term Endowment Pool (LTP), with approximately $3.4 billion in assets; the Employees' Retirement Pool (ERP), with approximately $659 million in assets; the Intermediate Term Pool (ITP); and the Institutional Reinvestment Account (IRA), also known as the working capital pool. Trustees established the long-term annual return objective for the LTP at 5.5% after inflation, with a goal of spending 5.5% of the endowment's average market value for the preceding three years (Duke University Management Company, "Structure and Governance," "Assets Managed," and "The Endowment Challenge," 2002).

University of Texas System's endowment

As of March, 2003, the largest endowment fund for higher education in the state of Texas was the Permanent University Fund (PUF), whose beneficiaries included 13 component institutions of the University of Texas System and 11 component institutions of the Texas A&M University System (UTIMCO 2002a, pp. 19,22). The PUF was established in 1876, composed primarily of over one million acres in land grants (UTIMCO 2002b, p. 1). That original land grant was increased by an additional one million acres in 1883, and by 1901 (coinciding with the discovery of oil on Spindletop Hill in 1901 near modern-day Beaumont, Texas), the state legislature had granted further control over mineral interests in the PUF land holdings. In 1931, legislation allocated one third of the PUF income to Texas A&M University, and two thirds to the University of Texas (UTIMCO, 2002b, p. 2). Between 1923 and 2001, over $5.6 billion was directed from the PUF proceeds to the Available University Fund (AUF), which was in turn expended towards (a) debt service on PUF bonds for capital expenditures and (b) academic excellence programs, ranging from library enhancements to classroom equipment to student financial aid. In 1984, a state constitutional amendment enlarged the bonding capacity to 30% of PUF asset value at the time of issuance (20% for UT, 10% for A&M), with $977.3

million in outstanding bonds as of the 2001 Annual Report, and rated as AAA or Aaa by leading bond authorities (UTIMCO, 2002a, p. 22). Such PUF bonds are issued "to finance construction and renovation projects, major library acquisitions, and educational and research equipment" for participating institutions (UTIMCO, 2002a, p. 22). As of the 2001 annual report, the PUF had grown to over $7.5 billion, including a portfolio of "broadly defined equity, fixed income, and absolute return investments" (UTIMCO, 2002a, p. 23). Passage of Proposition 17 in 1999 amended the Texas Constitution to permit distributions from the PUF to the AUF on a "total return" basis, which included income and capital gains. These distributions were between 4.5% and 4.75% of total PUF returns as of 2001 (UTIMCO, 2002a, p. 23).

UTIMCO and the Office of the State Auditor: 1996 Review of Controls

A report by the Office of the State Auditor (Alwin, 1996), filed roughly nine months after UTIMCO's March 1996 founding, highlighted many of the issues raised in news stories concerning UTIMCO's management of the PUF (Permanent University Fund) and other endowments. The report included remarks about the former Office of Asset Management (OAM), as well as remarks about the transition from the OAM to UTIMCO.

Key findings in that report included recommendations that (1) the Board of Regents of the University of Texas System "consider using an independent investment consultant" (Alwin, 1996, p. 95) to avoid relying solely on recommendations from UTIMCO and that (2) "adequate documentation of adherence to ethics standards" (Alwin, 1996, p. 96) be maintained in investment files. In a more general finding related to several state endowment funds, the report recommended passage of a constitutional amendment to eliminate certain restrictions on the use of capital gains and ordinary investment income (Alwin, 1996, pp. 11-12). The report expressed concern that the creation by the legislature of nonprofit corporations like UTIMCO might diminish public accountability, especially if those corporations become immune to open meetings and open records laws (Alwin, 1996, pp. 25-26).

UTIMCO: Developments Between 1999 and 2002

After Alwin’s audit report was filed, a number of changes took place that might reasonably be attributed to the concerns expressed therein. Passage of Proposition 17 in 1999 amended the state constitution to permit distributions from the PUF to the AUF (Available University Fund) based on the total return approach, which includes income return as well as realized and unrealized capital gains.

In September 2002, UTIMCO’s board unanimously passed a policy of “full and fair disclosure to the public” of all of its investments of public funds, whether those investments are in public or private securities (UT System, 2002a, p. 1). This policy affected future private investments and required that UTIMCO seek waivers of any existing non-disclosure agreements (UT System, 2002a, p. 1). By October 2002, UTIMCO made details of 149 of its “completed and active” partnerships available on its website, including

> the name of the partnership, the partners, the year the partnership originated, the amount of money committed by UTIMCO, the amount of UTIMCO capital drawn to date, the amount of capital returned to UTIMCO to date, the general partner’s

> assessment of current value, and the internal rate of return (UT System, 2002b, p. 1).

Requestors were required to complete a simple form, and they received the requested information via e-mail. In news articles, the then-CEO of UTIMCO conceded that the UT System Chancellor and UT System Board of Regents Chairman "took the moral high ground in demanding transparency on private investments" but acknowledged that this might discourage prospective investment partners from agreeing to private deals in the future (Haurwitz, 2002, p. A1). This major change in UTIMCO policy regarding its disclosure of private investments could be attributed in part to the 1996 state audit report mentioned above, in part to a ruling on open records requests by the State Attorney General in 1999 (Cornyn, 1999), and in part to ongoing controversies fed in large measure by newspaper articles in the *Houston Chronicle* in 1999 suggesting a conflict of interest on the part of the then-UTIMCO Board Chairman. At the time of this writing, this story was continuing; as several interviewees included in the present study observed, however, accusations and assertions that may appear on the front page may be retracted in subsequent articles that are much less conspicuous in nature.

RECENT WORKS ON EDUCATIONAL ENDOWMENT MANAGEMENT: SWENSEN AND BRUCE

David F. Swensen chronicled his 14-year tenure as manager of Yale University’s endowment in his book, *Pioneering Portfolio Management* (2000). If each of the endowment management entities in this study were to model their policies after Swensen, would their endowments be better situated to weather the vagaries of the economy, providing a larger, steadier stream of income? That is one of the questions that inspired this research project.

Swensen’s book considers the purposes of endowments, their investment and spending goals, investment philosophy, asset allocation, portfolio management, performance assessment, and actual investment process. Three themes recur in his treatment of these topics.

First, he points out the necessity of a “rigorous analytical framework” (p. 3). Swensen insists on maintaining policy asset allocation targets by means of frequent rebalancing among asset classes; he observes that portfolios often drift from such targets as various asset classes over- or under-perform. Fund managers must avoid "casual commitments" to their asset allocation targets, which can lead to "casual reversal" when markets churn (pp. 3-7). It is a critical yet commonplace mistake to model the portfolio targets of one's endowment on the targets of comparable institutional funds, and such modeling may fail to take into account the specific needs of the institution being served. Further, investors sometimes make decisions to invest based on the identity, reputation, and personality of the co-investors rather than on the merits of the transaction (pp. 3-7).

Second, Swensen emphasizes "agency issues that interfere with the successful pursuit of institutional goals," which refers to fund management decisions made contrary to the best interests of the fund (p. 4). Trustees may seek to make an immediate impact during their term of office, a situation that can put the long-term health of an endowment in jeopardy. External portfolio managers may seek to make steady fee income, and corporate managers may divert assets for their own personal gain; in contrast, institutions seek high risk-adjusted returns. Such tensions can create a “wedge between principal goal and agent actions” (p. 5). Unfortunately, the institutional fund management mainstream has a typically short time horizon and strives to be non-controversial (p. 5). The best defense against the agency issues that Swensen describes is increased awareness of their existence (pp. 5-7).

The third theme in Swensen’s book concerns the “difficulties of managing investment portfolios to beat the market by exploiting asset mispricings,” in other words, the challenges of active portfolio management (p. 6). (This active management is differentiated from passive portfolio management, which aims to maintain holdings in asset classes that mimic certain standard market indexes.) Swensen suggests that active fund managers tend to make overly optimistic assessments of their likelihood of success, but he says that, in aggregate, active managers tend to lose value according to what it costs to play the investment game. This is manifested in management fees, trading commissions, and dealer spread (p. 6). Active management requires “major” staff resources, and trying to employ active management strategies “on the cheap” brings the possibility of material harm to the endowment (pp. 6-7). Even with a great staff, Swensen says, active management requires “un-institutional behavior” from institutions (pp. 6-7).

Swensen’s book does not discuss public university endowments, such at that of U.T. System, and it does not offer much of an overall conclusion; nonetheless it does offer a good deal of detail about his very successful work at Yale.

Whereas Swensen focused most of his work on one institution, the study detailed in Charles Bruce’s dissertation (Bruce, 1999) analyzed responses from 41 different institutions. Whereas Bruce focused on endowments with assets worth $100-400 million, the present study focused on the very largest educational endowments. Further, Bruce’s study had a sample size of 41 respondents (out of 93 surveys), and his research was driven more by quantitative than qualitative methods. Bruce’s study employed a stepwise regression model. He concluded that three of ten management characteristics, namely: (1) investment policy attributes, (2) managers per $100 million of assets, and (3) the number of annual meetings of the investment committee, explained approximately 50% (12.9%, 21.4%, and 15.7%, respectively) of the relationship between investment performance and endowment management practices for the 41 respondents in his study. The remaining seven characteristics that Bruce studied appeared to have no apparent effect on investment performance (Bruce, pp. 103-106).

Bruce’s study addressed much of the literature relevant to the present study. He highlighted “the role of endowment funds” (p. 17), “the evolution of endowment management” (p. 20), “classification of endowment principal and income” (p. 27), “structures of endowment asset management” (p. 32), and “endowment management issues” (p. 64). His study provided a good organizational framework for a further review of the literature as it relates to the present study, and that organizational structure influenced the section headings and structure of much of the information that follows in the remainder of this chapter.

THE ROLE OF ENDOWMENT FUNDS: MORE THAN JUST A REVENUE STREAM

Bruce reported that endowment income represented .6% of total revenue for public colleges and universities, and 4.7% for private institutions in

1995-96 (*The Chronicle of Higher Education* Almanac, 1997 as cited in Bruce, 1999, p. 17). As of the *Chronicle*'s August 2002 Almanac, the Department of Education had issued a revised figure for revenue from endowment income for private institutions for 1995-96 to 5.2%. The figure for public institutions was steady at .6% for 1996-97.

This average endowment contribution towards revenue of approximately 5% for private institutions, and approximately .5% for public institutions, would appear to be an almost insignificant portion of total revenue. But Massey (1990) observes that the role of endowments is nonetheless vital, in that endowments provide for greater independence in academic program decision-making, they subsidize the institutional operating budget, and they enhance the balance sheet. These contributions in turn strengthen bond ratings and reduce the cost of borrowing for the institution (Massey, 1990, as cited in Bruce, 1999, pp.17-18).

THE EVOLUTION OF ENDOWMENT MANAGEMENT: UMIFA, PRUDENT INVESTOR RULE, AND MARKOWITZ'S MODERN PORTFOLIO THEORY

The Uniform Management of Institutional Funds Act (UMIFA), the Prudent Investor Rule (PIR), and Modern

Portfolio Theory (MPT) have had a major impact on endowment management (Bruce, 1999).

UMIFA, a product of the 1968 Ford Foundation study of endowment management, had been passed by 46 states and the District of Columbia as of February 22, 1999 (Bruce, 1999). As of March 2003, all states except Alaska, Pennsylvania and South Dakota had passed some form of UMIFA legislation (Gallagher, 2003). UMIFA provides colleges, universities, and other charitable corporations with the total return concept, "broad powers of investment authority," "the authority to delegate investment management decisions," and a method for waiving restrictions on the use of endowment funds (NACUBO, 1980, as cited in Bruce, 1999). In effect, it allows fund managers to focus on long-term growth, not just short-term yields.

The PIR replaced the *prudent man rule* in the third restatement of trust law issued by the American Law Institute in 1992. The PIR gives trustees "more latitude in the exercise of their investment responsibility," addressing risk and return, inflation-adjusted real return, and investments viewed in total rather than in isolation. Underlying the rule is the proposition that “no investment vehicles or investment management techniques are imprudent *per se*” (Bruce, 1999, pp. 22-23; see also Welch, 1991, and Harvard College V. Amory, 9 Pick. (26 Mass.) 446, 461 (1830), as cited in Bruce, 1999.). It thus allows for a more contextual, holistic approach to evaluating the prudence of investments.

Harry Markowitz first explained the principles of MPT in his doctoral dissertation (1956); he eventually won the Nobel Prize for his theories, which proposed combining assets into a portfolio to optimize return for a given level of risk. According to Dobbins, Witt, and Fielding (1994, p. 2), “MPT could be described as risk management, rather than return management.” MPT “suggests that diversification is rational, given that investors should only take on that part of risk for which they expect to be rewarded.” (Dobbins et al, 1994, p. 12).

According to Maginn & Tuttle, “what Markowitz focused on for the first time was the quantification of diversification.” Charts on perfect positive dependence (two assets moving up or down together), perfect negative dependence (two assets moving in opposite directions), and imperfect, but high, positive dependence (two assets tending to move together) can demonstrate this. For example, in the case of two securities with perfect positive dependence, there is no benefit to be gained from diversification (i.e., no benefit in holding both securities rather than just one of them): the price of the two securities with perfect positive dependence moves up and down simultaneously (Maginn & Tuttle, 1983, p. 45). On the other hand, in the case of a portfolio holding two securities with perfect negative dependence, the portfolio would have no risk. Markowitz's pioneering work essentially transformed finance into a separate field of study (Bruce, p. 26). According to Anson, "asset allocation can trace its roots" to MPT and the work of Harry Markowitz (Anson, 2002, p. 5). Bruce (1999) notes that an extension of MPT, known as Post Modern Portfolio Theory (PMPT) measures only undesirable risk – it determines the "semi-deviation or risk that falls below the target return for a stated period of time." (Berens, 1994, as cited in Bruce, 1999).

CLASSIFICATION OF ENDOWMENT PRINCIPAL AND INCOME

Bruce uses Massey (1990), Greene (1992), and Williamson (1975) to explain the difference between true, term, and quasi-endowment funds. The principal in true endowment funds is never expendable; that in term endowment funds is expendable after a stated period or event; that in quasi-endowments functions similarly, but can be expended at any time, at the discretion of the governing entity (e.g., a board of trustees) that established them. Appendices A and B include more details and definitions of these and other terms relative to endowment management.

NACUBO's 1996 study (NACUBO, 1997) showed that true endowments made up 61.4%, and quasi-endowments 33.6%--together, 95%--of the $123.2 billion in endowment assets in the study. NACUBO's 1999 study showed 57% in true endowments, and 36.8% in quasi-endowments-—together, 94%--of the $195.4 billion in endowment assets in the study (NACUBO, 2000, as cited in Klinger, 2000).

In other words, true and quasi-endowment funds are, by a huge margin, the most important types of endowments in terms of sheer dollars. Current practices have expanded the concept of endowment principal to include both an original gift and any additional amount needed to maintain the purchasing power of that original gift (Swensen, 1994, as cited in Bruce, 1999, p. 30). As Swensen points out, the Consumer Price Index (CPI) and Gross National Product (GNP) are both inadequate indices of true purchasing power in higher education, because productivity gains tend to benefit other sectors of the economy disproportionately (Swensen, 2000, p. 35). Institutions of higher education should instead use the Higher Education Price Index (HEPI), which better accounts for salaries and personnel costs in this sector, to determine relative purchasing power over time (Swensen, 2000, p. 35).

The Princeton study (Princeton University, 1970), as well as the Ford Foundation Studies (Cary & Bright, 1969, and Bowen, 1969) "laid the foundation for the definition of endowment principal and income as legislated in the UMIFA and the Uniform Prudent Investor Act (Bruce, 1999, p. 32)." The Princeton study recommended a modified definition of income for these reasons:

1) The definition of income, from an economic perspective, makes no distinction between capital appreciation and yields (dividends and interest). Such a distinction is arbitrary.

2) The spending plan that allows only the expenditure of interest and dividend income is not the best way to maintain the purchasing power of the endowment principal.

3) The basic issue of balancing the needs of the present and the needs of future generations is resolved by the definition of spendable income. The balance issue should be addressed by investment and spending policies that allow for a “total return” investment strategy.

4) The spending plan that limits spendable income to dividends and interest may at times pressure the investment managers to select securities for yield and not for maximum total return (Princeton University, 1970, as cited in Bruce, 1999).

The Princeton study also outlined the following criteria for a redefinition of endowment income:

1) Endowment principal should be protected in terms of its real value or purchasing power. When the

cost of higher education rises, the value of endowment principal should increase to cover the added cost.

2) Endowment fund management should provide a cushion against market declines.

3) The income distributed to spendable accounts should be relatively stable from year to year.

4) Any change created by a redefinition of endowment income should be implemented gradually over an extended period of time (Princeton University, 1970, as cited in Bruce, 1999).

STRUCTURES AND STRATEGY: ENDOWMENT ASSET MANAGEMENT

Educational endowments have certain unique characteristics that distinguish them from "mutual funds, banks, insurance companies, pension funds, labor union funds, and corporate profit sharing plans" (Bruce, 1999, p. 33). These include their tax-exempt status, their infinite time horizon, and the expectation that they will provide a stable revenue stream for academic operations (Downes & Goodman, 1995, as cited in Bruce, 1999, p. 33; note that Bruce says "indefinite" rather than "infinite."). As Bruce states, "by observing the management processes and practices of other institutions, especially those that consistently have above average performance numbers, colleges and universities can determine the most effective endowment management practices" (Bruce, 1999, p. 34).

Synodinos (1992) says endowment managers should consider the following four ways to increase endowment principal: (1) increased fund-raising; (2) an emphasis on growth as well as income; (3) reinvestment of some of the return as a hedge against inflation; and (4) transfer of the annual operating surplus to a quasi-endowment (Synodinos, 1992, as cited in Bruce, 1999). While that last opportunity may be a rare event, it is nonetheless good counsel. To that list, Dunn adds the suggestion that endowment dollars per full time equivalent student keep pace with peer institutions (Dunn, 1991, as cited in Bruce, 1999).

In determining their endowment management structures, Bruce (1999, pp. 35-65) suggests that colleges and universities focus their efforts on:

- <u>*formulating a thoroughly analyzed investment policy to guide decision-making*</u> (Ellis, 1993; Edie & Smith, 1993; Morrell, 1996; Storrs, 1986; Maynard, 1996; Hopewell, 1994;

NACUBO, 1992; Schneider et al, 1997; and Williamson, 1975);

- *evaluating an appropriate investment time horizon, which will necessarily have an impact on the investment instruments chosen* (Ellis, 1993, and Jacobson, 1996);
- *setting a spending and accumulation policy consistent with the goals of the institution and flexible enough to meet current needs* (Schneider et al, 1997; Massey, 1990; Greene, 1992; Bowen, 1969; Williamson, 1993; Morrell, 1995; Nettleton, 1986; and Tobin, 1974);
- *defining investment asset classes (e.g., stocks, bonds, cash equivalents, real estate, etc.)* (NACUBO, 1997; Schneider et al, 1997; Downes & Goodman, 1995; Williamson, 1993; Takahashi, 1996; Russell, 1994; Brinson, Singer, & Beebower, 1991; Brinson, Singer, & Beebower, 1986; and Massey, 1990);
- *determining whether using internal or external managers is more appropriate* (Cary

& Bright, 1968; Daugherty, 1990; Morrell, 1996; Academy for Educational Development, 1985; and St. Goar, 1996; see also Anson, 2002, pp. 88-92, for an excellent and exhaustive checklist/questionnaire for prospective and current fund managers.);

- *deciding upon **active** (i.e., specific security selection) or **passive** fund management (i.e., holding to an index for a specific asset class)* (Sharpe, 1991; Williamson, 1993; Jensen, 1968; Ippolito, 1989; and Elton, Gruber, Das, & Hlavaka, 1993); and
- *selecting and monitoring managers* (Green, 1992; Massey, 1990; Ellis, 1994; Murray, 1986; and Adams, 1972).

Bruce (1999, p. 66) observed that studies prior to his own had been generally limited to private institutions, the sample size had been too small, or the study had been limited to a specific geographic area. Accordingly, his study included both public and private institutions from a broad spectrum of geographic locations. He did, however, omit any extended consideration of the largest educational endowments from his study, and large endowments have certain characteristics, constraints, and capabilities not necessarily found with smaller endowments.

Bruce’s study provided several useful insights relevant to the present study of larger endowments, but his advice, following Maynard (1996) that strategic investment policy development be “straightforward,” and that “the allocation of endowment assets to complex classes unnecessarily complicates the management process” really cannot apply to the largest and (necessarily) most complicated of educational endowments (Maynard, 1996, as cited in Bruce, 1999, p. 36).

Conceding that investment policy statements will vary from institution to institution, Bruce highlights NACUBO’s general advice that policy statements should include:

> (a) asset allocation guidelines and a list of allowable assets, (b) expected time horizon, (c) the fund’s performance return objectives, and (d) the manager selection and evaluation criteria (NACUBO, 1992, as cited in Bruce, 1999, p. 37).

That advice is as applicable to the mid-sized endowments in Bruce's study as it is to the large endowments in the present study.

Dealing with Hard Times

Leslie & Fretwell (1996) offer guidance about the lessons learned from hard times and about how to analyze prospects for institutional success over time. They employ three themes: (1) "the sources and impact of fiscal stress on colleges and universities;" (2) "their search for solutions to fiscal challenges;" and (3) "understanding how to respond with resilience and reestablish the long-term robustness of higher education." (p. 3)

Leslie & Fretwell focused on the "stressed financial conditions that most colleges and universities were experiencing between 1989 and 1995" (1996, p. 3). They interviewed twelve presidents from thirteen institutions, ranging from Pennsylvania State University, with 37,000 students, to Tusculum College, with fewer than 500 resident undergraduates (1996, pp. 6-7). (Two of the twelve institutions shared a president.)

Among the lessons one learns from their study are that: (1) "the roots of fiscal stress are deep and complex" and that (2) "pressure for change affects all aspects of the institution: its mission, its organization, and its programs" (pp. xi-xii). Further, they concluded that there was no single cause of institutional stress; "institutions were challenged by a complex and interacting array of factors" (p. 165). They outlined several questions that CEO's and other institutional leaders should be asking continuously regarding (1) "the effects of economic, demographic, and political trends;" (2) "trends in the institution's financial condition;" (3) "stability, openness, and courage in management;" (4) the "vitality of educational programs;" and (5) interactivity among these factors (pp. 165-6). CEO's and leaders should engage in methods of triage in ways that are analogous to the norms and protocols for making triage decisions in the medical profession (p. 196).

It is possible that such guidance will be useful in the near future for a number of institutions whose spending policies may have been revised during the recent bull market, but which are insufficient to cope with rapidly changing market forces. With respect to endowment management, contrarian strategies as suggested by Swensen (2000), leveraging as used by Harvard Management Company, and flexible, responsive spending policies as implemented by Harvard Management Company would seem to offer substantial protection against bear markets.

THE ETHICAL DIMENSION

As was observed in *The Ethical Investor* decades ago,

> Schools of higher learning recently have been urged to manage their endowments so as to respond, in some fashion, to the fact that they own stock in companies which pollute or strip-mine, operate in South Africa, fail to hire or house blacks, make DDT, napalm, and unsafe cars—or take other action believed to impair the human condition." (Simon, Powers, & Gunnemann, 1972).

The moral and ethical dimensions of investment management are complex, and having a well-considered policy dealing with such issues is essential. Since the fall of apartheid in South Africa, "fewer colleges are using their clout as investors to speak out about moral questions in corporate America and the world" (*Chronicle of Higher Education*, March 29, 1996).

Administrators say that this is largely due to the apparent ambiguity surrounding issues today. "I don't see any black and white… I see lots of gray," says C. Daniel Gelatt, a member of the Board of Regents of the University of Wisconsin System. (*Chronicle of Higher Education*, March 29, 1996).

Besides investments in South Africa, other investment segments fraught with tension include: the tobacco industry, the alcoholic beverages industry, the gambling industry, chemical companies (those who may be criticized for their anti-environmentalist leanings), and racist or sexist companies of any sort. Animal rights and abortion in particular can bring violent protests to campuses with healthcare and research-related investments. Such "socially responsible investing" seems to have peaked in the 1970s and '80s, when many colleges and other institutional investors divested their holdings in companies that operated in South Africa (Lenington, 1996). But we may be in the midst of a resurgence of such concerns across the country. Articles about sweatshops in Asia producing athletic apparel for companies like Nike, and about students organizing against investments in irresponsible companies, are on the increase (*Chronicle of Higher Education*, November 26, 1999).

SUMMARY

There has been considerable work done on investment management theory, and Bruce's recent work on educational endowments ranging from $100-400 million offers a number of good ideas for studying a large number of medium-sized endowments. But this present study attempted to use the existing works on investment management theory, the work done by Bruce, and in-depth analyses of the endowment management entities at the University of Texas System, Duke University, and Harvard University to determine what portion of existing theoretical work seems applicable to the management practices in place at the largest educational endowments in the United States. Swensen's work on Yale (1999), while it relies on a wealth of information that is perhaps unavailable to those outside a private university's endowment management company (and which thus may be difficult to obtain for the other private institutions in this study), is the standard against which this and future studies will be judged. Swensen’s work was crucial in giving the author of the present study a solid grounding in most, if not all, of the salient issues facing endowment managers in higher education. Perhaps the one insight from Swensen’s book most likely to give administrators pause is his observation that “productivity gains generally fail to benefit the human resource-dependent academic enterprise, increasing the difficulties inherent in maintaining endowment purchasing power” (Swensen, 2000, p. 50). To the author this suggests that there is a clear choice between reducing institutional staff and increasing endowment management efficiency to maintain (or hopefully broaden) the range of activities funded by an endowment.

Chapter 3: Research Methodology

Qualitative Perspective

The study of endowment management in higher education poses certain challenges. Aggregate quantitative data are available from the annual NACUBO studies conducted on behalf of NACUBO by TIAA-CREF. NACUBO's 2002 study included 654 participating institutions with total holdings of $222 billion: $61 billion for public institutions, and $161 billion for independent institutions (NACUBO, 2003, p. 1). The 2002 total demonstrated a decrease from $236 billion in the 2001 study (NACUBO, 2003, p. 1).

But the particular portfolio strategies and internal organizational structures of endowment management entities, especially at private institutions, are sometimes considered confidential, and it can be difficult to gain access. Such strategies and structures can be even harder to discern for some of the largest endowments, in part due to their complexity.

Particular instances of social science research can be categorized along a continuum between qualitative and quantitative approaches, where "qualitative" refers to an in-depth analysis of one or a few cases, and "quantitative" refers to a more standardized analysis of a large number of cases, typically using statistical methods and mathematical formulae. With that understanding in mind, it is accurate to say that this study employed a decidedly qualitative approach to the gathering and analysis of data, following many of the general guidelines set forth in Patton (1990).

A quantitative/statistical approach, such as is found in the educational endowment management study completed by Bruce (1999), may be appropriate for analyzing a larger number of similarly-sized endowments, and it is probably a very useful approach for applying Modern Portfolio Theory to determine the optimal balance of risk and return for a particular portfolio. Such a quantitative approach is less likely to be productive for studying the overall structures of just a few of the largest endowment management entities, however.

Further, since macro-economic conditions cannot and will not be repeated, an endowment management structure patterned on those structures investigated in this study would yield different results, regardless of the size of the endowment principal at the institutions in question. It is useful to determine what patterns emerge from analyzing the details of the management practices in place at these few institutions, but the reader should be cautious about interpreting the qualitative data presented herein, and cautious about assuming that it is readily generalizable to other, similarly-sized educational endowments. Perhaps even more importantly, any interpretation of the data offered in this study will not likely be applicable to smaller endowments that have less investment management expertise than is required to be competitive in highly inefficient markets such as venture capital and real estate. On the other hand, smaller institutions might pursue more sophisticated and aggressive investment strategies by pooling their assets with other small endowments, using the services of the CommonFund or similar entities. Though the CommonFund may tend to be more conservative overall than, for example, the Harvard Management Company, it has the capability to offer a variety of risk and return configurations for client institutions based on client goals.

The majority of this study consists of the analysis and explication of seven interviews conducted with endowment management professionals, university administrators, and other individuals affiliated in some way with the University of Texas Investment Management Company (UTIMCO), the Harvard Management Company (HMC), or the Duke University Management Company (DUMAC). These seven interviews took place between November 2001 and November 2002, and the three most relevant interviews in the sample (conducted with current employees of HMC, DUMAC, and UTIMCO) took place between June 2002 and November 2002. While it was not the major focus, this study also included some overall statistics and figures from the *Chronicle of Higher Education* available as of June 2003, since these figures provided additional background regarding how these institutions compared among the largest educational endowments.

SAMPLE AND METHODS

As is the case with many instances of qualitative research, the sampling method used in this study was “purposeful sampling” where the logic and power of the sample rests in “information-rich cases for study in depth” (Patton, 1990, p. 169). Taking as its point of departure the interesting case of UTIMCO as the first separate endowment management company formed by a public university, it followed rather naturally that Duke University Management Company (which served as a model in the formation of UTIMCO) and Harvard Management Company (which served as a model in the formation of Duke University Management Company) should both be included in this study. Chapter 4 devotes more attention to UTIMCO, in part because the author’s early research on UTIMCO helped to ground the author in endowment management concepts and issues, and in part because the founding of UTIMCO was the most recent of the three entities. In addition, the founding of UTIMCO was somewhat more complicated since it was intended to oversee funds for a public university system. While it would no doubt have been both interesting and fruitful to include additional institutions in the present study, various considerations of logistics and costs necessitated the drawing of certain boundaries.

The selection of interviewees could be considered a snowball sampling technique (Sias, 1995) in that some interviewees recommended that the author consult other specific individuals with experience at a particular institution or knowledge in a particular subject area.

The interview technique employed was a hybrid of the "general interview guide" and "standardized open-ended interview" described in Patton (1990, p. 280). The author created the interview protocol in consultation with members of the dissertation committee and with several investment management professionals. The protocol was submitted to, and approved by, the Institutional Review Board of the Office of Research Support and Compliance at the University of Texas at Austin. (The interview protocol is included in Appendix C.) In conducting the interviews, the author did not follow the interview protocol in a rigid fashion, to allow for the possibility that the interviewees might raise subjects and topics that the author failed to consider in creating the protocol.

The interaction between interviewer and interviewee did not delve explicitly into either participant's epistemology (or over-arching framework for categorizing how we know what we know). The subsequent analysis of those interviews, however, included a post-modernist optic because it acknowledged a "radical indeterminacy" at the heart of interviewing, an indeterminacy "which cannot be overcome by any methodology" (Scheurich, 1997, p. 75). In other words, the author believes there is no way to achieve a perfect correspondence between what the interviewee said and the written account of the interview.

As Scheurich suggests, there are multiple topics in play, both conscious and subconscious, during any interview, and the language of the questions and the responses can be slippery and ambiguous (Scheurich, 1997, p. 62). Complex power relationships exist between interviewer and interviewee, contributing to the shared meaning of the interview. Given the highly technical subject matter, the experts being interviewed helped drive the discussions to a considerable degree. This was not an exercise in aggressive investigative journalism; rather, the interviews were exchanges with highly intelligent, highly ethical, and highly competent professionals serving as mentors of the interviewer. The fact that each interview mentioned in this study took place in person, rather than by telephone or via written correspondence, greatly enhanced the ability of the author to interact and to clarify concepts and opinions with the interviewees. The author recorded each interview with the permission of the participant, transcribed each interview verbatim, and then categorized each section of the interview into themes using inductive analysis (Patton, 1990, p. 390). As Patton explains inductive analysis, "the patterns, themes, and categories of analysis come from the [interview] data (Patton, 1990, p. 390). In the present study, the interview protocol helped to shape these patterns and themes.

The author conducted an analysis of the seven interview transcripts soon after each interview and sent summaries to four of the interviewees for the purpose of "member checking" (St. Pierre, 1999). Three of the interviews yielded fairly straightforward background information, and the author determined that sufficient clarification of the subject matter had been achieved during the course of those three interviews.

These member checks, rather than taking the form of verbatim, strictly chronological transcripts, instead represented summaries of the interviews categorized into themes which were suggested largely by the topics upon which interviewees chose to devote the most time and focus. In each instance where corrections were necessary, the subsequent summary and analysis was well received, and only minor corrections were necessary. In other words, there did not appear to be a substantial gap between the written account offered by the interviewer and the response submitted to that written account by each interviewee.

Anonymity of the Interviewees

Since each of the interviewees were actively engaged in university administration, investment management, and/or some logical continuation of their careers in those fields at the time of the study, the author designed this study and the interview protocol with the understanding and assurance that interview participants would not be identified by name as such in the dissertation, with the intent of encouraging a frank and candid discussion of the topics. At the time of the study, each participant had well over a decade of professional experience in higher education, investment management, and/or a combination of those fields (and over three decades of professional experience in several cases), and almost every interviewee had reached the highest position in a large university or investment management entity by the time of the interview. By coincidence rather than by design, each interviewee was white, male, and over the age of thirty-five. The researcher endeavored to include a more diverse group of participants in this study, but the seven interviews included herein accurately reflect the overall composition of leadership positions at the endowment management entities studied.

Chapter 4 outlines the results of those interviews and the themes that emerged; each section of Chapter 4 preserves in large measure the same format that the author originally used to categorize themes for each individual interview.

Chapter 4: Findings

This chapter includes an analysis of the results of seven interviews with individuals experienced in investment management and educational administration. The interviews were grouped into **1) four background interviews** conducted from November 2001—April 2002 concerning the University of Texas System's conversion from internal to external endowment management, and **2) three primary interviews** conducted from June 2002—November 2002 with investment managers who worked on behalf of endowment management companies at UT System, Duke, and Harvard at the time of the interviews. Appendix C contains the interview protocol around which all these discussions centered.

THE UNIVERSITY OF TEXAS INVESTMENT MANAGEMENT COMPANY (UTIMCO)

Background Interviews

Participants and purpose

The author conducted four background interviews to gather information about the Office of Asset Management (OAM) of the UT System and its eventual spinoff in March, 1996 as the University of Texas

Investment Management Company (UTIMCO), a separate 501(c)(3) entity. The careers of two of these background interview participants focused primarily on educational administration, and those of the other two participants focused primarily on investment management. Three of these four background interviews took place in Texas; one took place in California. These background interviews served to (a) expand the researcher’s understanding of educational endowment management, (b) suggest reasons and justifications for the creation of UTIMCO in 1996, and (c) identify key personnel and suitable interviewees for further research.

Precursors of UTIMCO at the Office of Asset Management (OAM)

The Office of Asset Management was the internal entity responsible for endowment management for the University of Texas prior to the formation of UTIMCO in 1996. The four background interviews on OAM/UTIMCO demonstrated that there had already been some precursors of the UTIMCO structure in OAM.

While the governing board for the University of Texas System--the Board of Regents--certainly included highly intelligent people with proven successes in the business world, those board members did not necessarily have significant investment management experience. As a result, they were not well positioned to oversee the work of the OAM. OAM leaders therefore helped drive the formation of an Investment Advisory Committee (IAC) composed of six individuals with investment management experience. The OAM, IAC, and the Board of Regents held quarterly joint meetings. Having members of the IAC present at such meetings, even though the IAC had no formal powers or voting rights, increased the credibility of OAM recommendations made to the Board of Regents. The IAC was eventually expanded to include appointees from the Texas A&M System, in recognition of the fact that certain component institutions of Texas A&M were also beneficiaries of the Permanent University Fund (PUF).

Debt restructuring was a significant accomplishment of the OAM, reflecting its breadth of responsibilities. That restructuring led to the ability of the University of Texas System to offer tax-exempt commercial paper, meaning that a component institution undertaking a new building project such as a new dormitory could issue bonds backed with a 100%

pledge based on auxiliary unit revenue from throughout the UT System. UT System was able to obtain AA or AAA bond ratings based on this debt restructuring, so the cost of the debt burden plummeted.

Early attempts at offering incentive compensation for investment professionals during the time of OAM were defeated, though some UT System regents actually supported the idea, according to interviewees. The idea of offering incentive compensation came about because of a trend of high turnover in OAM; proponents argued that incentive compensation was the way that the investment management industry compensated itself. As one interviewee noted, it would have been particularly easy to grant performance-based incentive pay for investment managers, since investment performance is so easy to measure. Though merit pay and pay-for-performance may be difficult to implement in other fields, it was not a reason to disallow it in investment management, where performance is so easy to determine. There was eventually a proposal that a separate endowment be created specifically for the purpose of funding incentive compensation for investment management professionals, but interviewees stated that this proposal was defeated along with incentive compensation overall. The manner in which that proposal was defeated was unclear, but it seemed to the author that political pressure (either from faculty members, students, or citizens) was the most likely contributing factor.

Reasons to split the investment management function into a separate company

One justification offered for dissolving the OAM and creating UTIMCO was that it would provide some physical separation from campus and the UT System offices. Such separation would make it more attractive to potential investment professionals: it was a recruiting perk. Another justification offered was that there would be less bureaucracy in a separate company: for example, procuring a computer at UTIMCO would take a day, versus months to procure one at OAM. UTIMCO could also buy the best equipment rather than shopping for bids or selecting from a list of approved vendors.

Founders of UTIMCO believed it was important to insulate the endowment spending policy, to prevent overspending in a particular year. Budgetary pressures might lead to a desire to change the spending policy, but interviewees said that inter-generational justice dictates that an endowment fund must provide for each generation without jeopardizing the share for future generations. Overspending in one year would have an impact on many generations to come.

Interviewees suggested that separation from UT System would create greater insulation from political pressure. Interviewees noted that certain prohibitions (and proposed prohibitions) on investments by OAM had been arbitrary or ill-considered, such as the one that prohibited investment in companies that supported or promoted certain rap music lyrics (as proposed by a prominent state senator). Such a prohibition would have had the effect of making due diligence entail investment management professionals listening to various musical recordings and evaluating their content. This would conflict with a "reasonable person" standard for prudent investment management and maximization of return.

There was political pressure on OAM to invest on an economically targeted basis--pressure that OAM should try to balance the holdings in its portfolio across geographic areas within the state. Interviewees said this was nearly impossible to achieve or to measure, since key investments were typically made in companies that straddled state and even national borders. Realistically, such distribution would not serve the goal of maximizing return on investment. One interviewee noted, "as soon as we became political, everything we might do, every investment decision we might make, would be evaluated based on someone's political agenda. Separating the OAM function was intended to help us achieve that apolitical stance."

Another reason offered for splitting the endowment function was that the OAM had been viewed as a cost center, rather than as a profit center. "Some administrators did not realize you have to spend money to make money," as one interviewee phrased it. For example, obtaining reimbursement for work-related travel was difficult; international travel had to be approved by the Governor's office, meaning that performing due diligence for proposed or ongoing investments was cumbersome and bureaucratic. Procuring the right real-time tools for trading and monitoring market fluctuations was also difficult.

Under the OAM structure, legal opinions about potential and current investments had to be sought from the state Attorney General's Office; however, staff in that office had little experience or expertise with legal issues related to more esoteric investment instruments like venture capital. Further, the use of any outside counsel had to be approved by the Office of the Attorney General.

The State Office of the Controller, the State Auditor, and the media were concerned about a loss of control and accountability, and thus were resistant to the creation UTIMCO as a separate entity. The Teacher's Retirement System (TRS), the Permanent School Fund (PSF), and the Employee's Retirement System (ERS) were still adhering to the old state organizational structure, and staffers at those entities could not understand why OAM had different aspirations. Although OAM had begun to invest in private equities, one interviewee observed that a compelling reason for OAM to split--the potential for more effective participation in private investment instruments--was something that pension systems in Michigan and Oregon had been doing for two decades.

Formation of UTIMCO and the OAM-UTIMCO transition

According to interviewees, the Duke Management Company (DUMAC) was the model that UTIMCO was founded upon; DUMAC itself used the Harvard Management Company (HMC) as its model; thus the UTIMCO model ultimately derived from that of HMC. The UT System / OAM engaged Cambridge Associates to conduct a study, in part to meet due diligence requirements for determining what shape UTIMCO should take; the Cambridge Associates study essentially confirmed the recommendations that OAM professionals had made regarding the need for UTIMCO and the advantages it could provide.

According to interviewees, the original idea of forming UTIMCO came from a UT System Regent who was perhaps influenced by OAM officers and IAC members. That Regent traveled to Duke Management Company prior to the 1996 UTIMCO spinoff to meet with DUMAC’s CEO to gather information about the July 1990 formation of a separate investment management company for Duke.

Interviewees suggested that the formation of UTIMCO came about due to the coming together of a small number of uniquely qualified individuals, including a UT System Chancellor with considerable business and financial acumen, an OAM staff with sufficient expertise capable of founding a separate entity, and key individuals at UT System who possessed skills in governmental relations such that the state legislature could be persuaded by the merits of forming a separate 501(c)(3) company. Leading up to the formation of UTIMCO, the position of UT System Chancellor had alternated between those whose careers emphasized financial expertise and those whose careers emphasized academic expertise, according to interviewees. UTIMCO came about when a chancellor conversant in both realms took charge--he could see the advantages of UTIMCO very readily. As one interviewee phrased it, "Regent Tom Hicks and Chancellor Bill Cunningham were crucial, instrumental in the conception and formation of UTIMCO. Dr. Cunningham was an exceptional leader in this regard."

According to one interviewee, there was a general recognition that UT System could function more efficiently if its endowment management processes could mirror those of professional finance or investment firms. Allowing for higher salaries was not necessarily *the* driving force, though interviewees generally conceded that manager salaries had gone up after the formation of UTIMCO. It was pointed out, though, that the University was not officially constrained in terms of the salaries it could pay OAM staffers. Further, interviewees observed that UTIMCO was still enough of a public entity that public outcry about high salaries was still possible, and perhaps even likely.

In the time leading up to formation of UTIMCO, there was some feeling that a separate entity might be able to escape some of the requirements of the state's open meetings and open records laws--that is, if it were an independent corporation, UTIMCO might not have to go through the same open meetings and open records procedures, perhaps thereby streamlining decisions. But ultimately a decision made by the legal staff of UT System dictated that UTIMCO was still subject to open records laws, and UTIMCO was legally bound by that decision.

Difficulties in running UTIMCO once it was established

Interviewees suggested it was still difficult to retain individuals interested in a long-term career path at UTIMCO. Because UTIMCO was to have a limited, specific scope, interviewees observed that there was less potential for employees to move up in the organization than there might have been in a large investment house. As one interviewee phrased it, “We’re not going to be opening a Dallas, Houston, or New York office anytime soon.“ According to another interviewee, it was also difficult to recruit and retain qualified investment professionals in a quasi-academic setting. (At the time of the interviews, UTIMCO was more physically removed from the University than it was upon its founding in 1996, having moved to leased space in a downtown Austin bank building, across the street from UT System Administration offices. Interviewees suggested this had helped with recruitment.) Since building a successful investment management team might take 10 or more years, lower retention rates made building a team challenging. Interviewees said there was a very limited opportunity to take on additional outside capital management, though one interviewee observed that the $890 million Permanent Health Fund (PHF) created in August 1999 with proceeds from state tobacco litigation was an exception.

Financial incentives alone were not enough to retain the most skilled investment managers, according to interviewees; they needed and wanted more challenging work to keep them interested and motivated. One interviewee suggested that UTIMCO's management might need to simply assume a five-year rolling turnover rate in personnel. The University was deemed to be a "regulatory entity" by the legislature, so no ex-UTIMCO employee could do business with the University or UTIMCO for a year after employment separation. This made it difficult to recruit and retain individuals who might want to branch out into their own separate investment management activities, according to interviewees.

Management of public funds required a greater allocation of time to the media, the legislature, various regulatory bodies, and open records administration. Fulfilling open records requests was very time-consuming, according to interviewees; one interviewee estimated that 40-50% of the time of top personnel at UTIMCO could potentially be spent on non-investment related activities. Fulfilling open records requests was also expensive, often requiring the assistance of outside legal counsel.

Even with the formation of UTIMCO as a separate entity, there was ongoing bureaucratic red tape: during legislative sessions, top staff members had to be “on-call” all the time, even if prior travel arrangements had been made. Interviewees said it was not unusual to be called to provide information to legislators on short notice. (One interviewee suggested whimsically that, rather than merely meeting and matching the compensation available in the private sector, UTIMCO might need to offer “hazard pay,” given the nature of some of the non-investment management aspects of the work.)

Continuing tension over levels of compensation was not limited to UTIMCO. As one interviewee noted, the Harvard *Crimson* regularly featured news stories on HMC’s compensation structure, even though it was clearly one of the most successful such investment management companies in the educational arena. That success was perhaps due to HMC’s compensation structure and concomitant ability to attract skilled portfolio managers. (Interviewees also noted that HMC had to recruit in the Boston area, a major financial market, so it competed for some of the same managers that major banks and large investment houses tried to attract.)

UTIMCO organizational structure; miscellaneous observations by interviewees

One interviewee noted that there seemed to be a widespread assumption that the Chancellor of the University of Texas System must have proven experience as a professor--yet chancellors typically spent a lot of time raising money. (By way of analogy, the interviewee suggested that one does not hire the head of General Motors based on the ability to assemble a car; one hires based on the ability to run General Motors!)

A key item in UTIMCO’s success, according to interviewees, was passage of an amendment to the Texas Constitution in November 1999 permitting the Permanent University Fund (PUF) to be managed as a Total Return Fund. According to the interviewees, lobbying for passage of that amendment represented a sizable gamble on the part of the UT System, because it represented a fundamental change in the way the PUF was viewed. By getting the legislature involved, the UT System risked the potential passage of a constitutional amendment that was not what they really wanted. The amendment could have, for example, expanded the list of PUF beneficiaries to additional educational institutions, effectively decreasing the proportion of proceeds for current beneficiaries. Interviewees conceded that it might have been possible to apply the total return concept under the old OAM structure, but they said the change had certainly been good for UTIMCO in terms of the kinds of returns it could earn. UTIMCO influence and input was critical in the passage of the amendment; members of UT System's Office of Governmental Affairs were also particularly helpful. One interviewee suggested that tobacco settlement money (deposited in the Permanent Health Fund and managed by UTIMCO starting in August 1999) would not have come under UTIMCO control without its proven track record and investment expertise.

Interviewees suggested that formation of UTIMCO probably owed something to the coincidence of a) a UT System Board of Regents advocate; b) support of the UT System Chancellor; and c) a chief investment officer at OAM capable of running a separate investment management entity. Several interviewees agreed that there was a good alignment in the interests, skills, and abilities of these leaders which helped to bring about the formation of UTIMCO. According to interviewees, that did not mean that UTIMCO was suited only for a particular point in time. Rather, it meant that the initial formation of UTIMCO benefited greatly from the alignment of those three individuals, but that the continued success of UTIMCO was not as dependent upon that continued alignment.

One thing that made the formation of UTIMCO more palatable and attractive to the UT System Board of Regents was that UTIMCO could effectively be "unraveled" or re-integrated with the UT System in one day. The UT System Board of Regents could reunify the investment management function as an integrated part of the System administration if the board members grew displeased with the overall direction that UTIMCO took.

Overall, most interviewees agreed that UTIMCO had a good structure at the time of the interviews, and its oversight board provided more stability and investment expertise than did the Board of Regents.

There was significant turnover in the Board of Regents, and that did not lend itself to institutional memory or to stability of policy, especially given that investments for an educational endowment should be made with an infinite time horizon. Not all interviewees agreed that the formation of UTIMCO was absolutely necessary for successful endowment management, however, and one interviewee believed that the OAM staff had been appropriately compensated--in other words, that interviewee did not see increased compensation as a solid argument for creating a separate investment management entity.

Observations from the four background interviews above helped to inform and guide the discussions in the primary interview on UTIMCO, described below.

Primary Interview on UTIMCO

The primary interview on UTIMCO, conducted in November 2002 after all four background interviews had been completed, focused on (1) the individual interviewee’s background, (2) UTIMCO’s background, (3) outsourcing of fund management responsibilities, (4) reasons for creating a separate investment management entity, (5) the relationship between UTIMCO and development offices, (6) restricted endowments, (7) ethics policy, (8) the differences between endowment fund management and pension fund management, (9) the nature of the relationships among UTIMCO, the state legislature, and the press, (10) spending policy, (11) benchmarking by asset class, (12) channels of communication with component institutions, (13) recruitment and retention of investment professionals, and (14) the challenges inherent in educational endowment management.

Individual interviewee's background

At the time of the interview, the primary interviewee had been working with UTIMCO less than 2 years, with a career spanning more than 2 decades in investment management, including both pension and endowment management. The interviewee had significant experience in dealing with large, complex endowment funds.

UTIMCO background

The interviewee noted that the University of Texas System was the first public university system to create its own separate 501(c)(3) investment corporation to manage its endowment, in March 1996. UTIMCO's responsibilities at the time of the interview included managing and investing: the Permanent University Fund (PUF); various privately raised endowments from the UT System component institutions; UT System endowments; the State of Texas tobacco lawsuit settlement (the PHF); and other funds. A nine-member Board of Directors appointed by the UT System Board of Regents governed UTIMCO. This UTIMCO board included three members from the UT System Board of Regents, the Chancellor of the UT System, and five outside management professionals.

Outsourcing of fund management responsibilities

The interviewee stated that UTIMCO used external fund managers for a) all domestic and international equities, b) all private equities, and c) some of the fixed income portfolio (while some fixed income was managed in-house). Further, the interviewee noted that UTIMCO managed part of the operating assets in-house, as well as a real estate investment trust (REIT) portfolio. At the time of the interview, approximately 90% of assets were externally managed.

The interviewee observed that although some might consider the size of assets under management to be the main determinant of whether to outsource a management responsibility, it may actually be the worst, or the least relevant, reason to outsource fund management; rather, one should give oneself the best opportunity to earn the highest return possible. The interviewee suggested that, in the investment management business, cost alone is rarely a sufficient reason for making such decisions. He observed that HMC had done much of their investment management in-house because they believed they could do a better job in-house. This allowed their staff to have better control over the process, and it allowed them to be more nimble. As the interviewee phrased it, “Certainly they don't do it to save money.”

The interviewee suggested that there is a certain minimum asset size, below which it becomes infeasible to manage in-house, and suggested that Duke’s endowment is probably close to that minimum. The interviewee noted that UTIMCO was large enough to do most, if not all, of its fund management in-house, if managers elected to do so; however, that would involve paying internal fund managers salaries competitive with entities that could pay considerably more money than UTIMCO. At UTIMCO, the growth potential for employees was fairly limited, according to the interviewee. On the other hand, the interviewee noted that UTIMCO had been very competitive with other organizations like itself, especially for certain very highly-specialized and skilled positions.

Reasons for having a separate investment management entity

The biggest and most important reason for creating a separate endowment management entity, according to the interviewee, was that it established independence in the decision-making process, and the decision-making process rested with investment professionals. The interviewee observed that, too often, especially with public entities, there can be a confusion of roles. The interviewee acknowledged that by and large, UT System Regents were very smart people, and very successful people, but they were typically not people conversant with investment management concepts. And, they did not have an unlimited amount of time to devote to investment management.

Thus, creating a separate entity was intended to make that division of responsibilities very precise, and to put the day-to-day tactical investment decision-making into the hands of professional people. The interviewee said that the size of the endowment was not really the determinant of whether a separate entity should be created; but, if size were the reason, it would mainly have to do with the cost of setting up the separate entity.

For example, if the treasurer of a small educational institution managed a smaller endowment on a part-time basis, the cost of setting up separate office space, staff, and computers probably would be prohibitive. The interviewee did not say specifically where the line of demarcation was, but speculated that it was probably more than several hundred million dollars. On the other hand, in the case of a smaller endowment that trustees wanted to push particularly hard for high returns, it might be worthwhile to set up a separate entity to help achieve the appropriate balance between risk and return. In sum, the interviewee suggested that it was partly a question of the size of the endowment, but also partly a question of the aspirations and investment goals for that institution’s endowment.

While the interviewee conceded that being somewhat competitive with respect to salary might not be the most compelling reason, it was certainly one reason for a public university to create a separate investment management entity; in the interviewee’s words,

> If you want to be a success in this business, you have to compete for the best people. It's a business where people make a tremendous difference. Actually, it's almost a binary decision--an individual here can make such a difference in the value of assets. It's not a question of how much you should pay someone to try to earn that return--it's… can they earn the return or not? If they can't, then you don't want to hire them. If they can earn the return, then you can pay them a lot more than we (and other people) do, and still justify it.

So clearly *a* reason--though not necessarily *the* full reason--for setting up UTIMCO was the compensation issue, in the interviewee’s opinion.

Relationship between UTIMCO and campus development offices; restricted endowments

Due to the number of component institutions it served, UTIMCO spent a reasonable amount of time with campus development officers, according to the interviewee. UTIMCO had had a very good working relationship with them, and development officers used UTIMCO materials in their work. Development officers invited UTIMCO representatives to speak to groups of constituents, and from time to time they called UTIMCO staffers to ask for advice on how to explain certain concepts to potential donors.

UTIMCO managed several funds at the time of the interview, and those funds were run somewhat like private mutual funds. The Permanent University Fund (PUF) was managed as a mutual fund, and it benefited institutions in the Texas A&M System and the UT System. The General Endowment Fund was a pooled fund of 6,000+ restricted endowment assets. Because of restrictions imposed by the original donors, another group of assets called the Separately Invested Fund (SIF) could not be placed in the General Endowment Fund. In some cases, a restriction required that the funds be managed by a specified outside entity, in which case all UTIMCO did was provide oversight. The SIF pool of assets was very small, and everything else being equal, UTIMCO would have preferred that donors not put restrictions on assets that required that they be put in that category, according to the interviewee.

Ethics Policy

UTIMCO's written ethics policy had been established when UTIMCO was originally formed, in consultation with an outside auditor and with a consultant, Cambridge Associates. The ethics policy was a very important consideration, according to the interviewee, because UT System was the first public university to set up a separate entity like UTIMCO, and the founders wanted to be sure that others would want to emulate it. The ethics policy contained a number of industry standards, but also went beyond those standards to establish the highest common denominator. The interviewee suggested that the charge given to the auditor and the consultant was to exceed expectations. The interviewee said that UTIMCO staff members monitored the policy, and an internal ethics committee met on a regular basis to consider any possible violations that had occurred. As far as the interviewee knew, there had not been any such violations.

Ethics policy formation was an ongoing process at the time of the interview, and the committee met regularly to consider changes in the policy. Once a year, the policy itself and a report on the policy was compiled by the committee and presented to the audit and ethics committee of the UTIMCO Board of Directors. The Board reviewed the policy to determine whether any changes should be made.

Employee trades required pre-approval. While UTIMCO did not have prohibitions on employees investing in individual companies, if the staffers were engaged in trading for the endowment accounts in a given security, an employee's trade in that security would not be approved. Since most of UTIMCO's assets were managed externally, there were no restrictions prohibiting investment by employees in specific companies. Furthermore, UTIMCO did not have any institutional restrictions on investments in tobacco companies or in other specific categories at the time of the interview. Rather, the policy of the Board of Regents stated that the investment of the endowment funds should not be managed to further any social and/or political causes.

Differences between endowment fund management and pension fund management

Since the interviewee had experience managing pension funds as well as endowment funds, the interviewee was able to offer some observations about the contrast between endowment and pension fund management. The interviewee noted that the major difference between pension fund management and endowment fund management is in the nature of the liability. In a pension plan for a younger company, the cash flow would be positive. The company would be contributing to the plan, the fund would be growing, the plan would be earning investment income, and if things were managed well, it would be earning capital gains. Therefore, current cash flow considerations would not affect how the fund was managed. In endowment management, however, there would inevitably need to be an annual payout.

At the time of the interview, UT System Regents had control over what was paid out each year. In that respect, the endowment fund was more like a mature pension plan than like a young pension plan. One would not necessarily have to meet the endowment payout with income, but one would have to generate a certain return to enable the fund to make that payout. As the interviewee observed, some universities receive more money from gifts each year than they pay out, so the funds are still growing, but that may not always be the case.

Nature of the relationship between UTIMCO / the state legislature / the press

According to the interviewee, there may be no way to reduce the commitment of time to working with the legislature and the press, and this was probably a good use of UTIMCO's time. "The legislators are very important people to us, and their job is to make sure UTIMCO staffers are doing the best job they know how to do with the assets under management, and that we are effective at it." The interviewee said that, by and large, legislators are smart people, but not necessarily conversant in the field of investment management, so a lot of the time with the Legislature was spent on education regarding investment management. And, the interviewee said, it was probably better to focus on that role than to risk getting into a contentious situation because UTIMCO representatives had failed to explain their efforts. Maintaining that relationship with the Legislature was a necessary part of the job, according to the interviewee, and it would be an ongoing effort because of legislative turnover.

The interviewee suggested that negotiations with legislators were probably more intense during budget shortfalls. The interviewee suggested that the UT System would have to fight for every dollar from the legislature in that environment. Even in good years, the interviewee observed, UT System must make sure that its case was presented properly and that they were viewed positively by the Legislature--because “at the end of the day, they're the people who control the money.”

Spending policy

The interviewee said that UTIMCO gave its recommendations regarding spending policy to the UTIMCO Board, which in turn gave them to the UT System Board of Regents. Ultimately, the Board of Regents made the final decision on how much to spend. UTIMCO gave the Regents its best investment opinion, and the Regents had to take other factors, political and otherwise, into account. According to the interviewee, “We have to respect their expertise in that area, and they respect our expertise in the investment area, and we just work together on it.” UTIMCO advised the Regents about what they thought the returns would be in the markets over the next five to seven years, and even over the longer term. UTIMCO staffers tried to keep expectations realistic. As the interviewee observed, in 2000 the equity markets were up more than 20% a year and people started to think UTIMCO could continue to achieve such returns every year. The interviewee added that it was not a realistic expectation that they would experience double-digit growth for 4-5 years in a row, just because there had been two years of relatively low returns. In sum, the interviewee stated that UTIMCO officials had to help rein in the thinking about how much money there might be over the long term.

Benchmarking by asset class

UTIMCO worked with its external consultants, Cambridge Associates, to develop a benchmark in each of the asset categories in its policy portfolio. Many such benchmarks were fairly easy to establish, as was the case with domestic (U.S.) equities. In the case of private equities, however, establishing a benchmark was more problematic. UTIMCO and its consultants arrived at a benchmark for private equities using the Wilshire 5000 Index plus 400 basis points. To do so, UTIMCO and its consultants looked at the capital market line, which essentially relates return expectations to risk levels. They believed that they could derive the risk level for private equities by looking at the correlation between risk and return across other asset categories, and they drew a market line (charting risk and return correlations) to determine that private equity would require a particular risk level for the expected return. To justify the risk taken with private equity, they determined that the rate of return would have to surpass the Wilshire 5000 Index by 4 percentage points per year. UTIMCO used that risk-based approach instead of an index to benchmark private equity partnerships. The interviewee said that was a better approach because an index sample might have been too dependent upon the performance of individual general partners in the sample.

Channels of communication with component institutions

The primary form of communication between UTIMCO and the development officers at UT System component institutions, whom UTIMCO staffers viewed as their clients, was a Web-based reporting system. At the time of the interview, there was a publicly available portion of the website outlining the various funds like the PUF, and there was a secured, password-protected portion of the Web site allowing campus officials to obtain specific information about each individual endowment for their institution. They could determine the current value, the rate of return over various time periods, and the payouts--essentially, all the financial and accounting information they might need. If needed, they could get information about the General Endowment Fund and about asset allocation. According to the interviewee, the clients of the component campuses were the individual donors and foundations, but UTIMCO did not typically interact with them. Instead, UTIMCO provided material for the development officers to communicate with these individuals.

The interviewee observed that, typically, UTIMCO’s contact with students and student groups was fairly limited, though they did talk with the *Daily Texan* (the student newspaper at the University of

Texas at Austin) on occasion. Typically when UTIMCO staffers did hear from student groups, it was in connection with a request for UTIMCO to divest of a certain investment.

Recruitment and retention of investment professionals

The interviewee observed that one of the forces working against UTIMCO in terms of recruitment was that UTIMCO was not located in the financial centers of the country (i.e., New York, Chicago, or San Francisco). UTIMCO chose not to be competitive at the top of the scale with respect to compensation. But, the interviewee observed, UTIMCO had many positive forces working in its favor. For example, many people prefer to work in an endowment environment rather than in a pension fund environment. And, many people would prefer to work in Austin rather than New York, San Francisco, or Chicago. UTIMCO was able to attract a number of well-qualified people who wanted to do something good for the University of Texas or for their state.

The interviewee stated that UTIMCO paid median to slightly above median compensation, which allowed one to live fairly well in central Texas. The interviewee observed that UTIMCO focused on hiring people who wanted to work at UTIMCO for the right reasons—i.e., to add value, and to do something important for a worthwhile entity--rather than worrying about their next job or their next bonus. While UTIMCO wanted strong, forceful, successful people, it did not want them to be so focused on their short-term career or financial goals that the organizational culture would become overly competitive. The interviewee observed that the environment at UTIMCO was very collegial and tolerant. The interviewee said UTIMCO staffers worked together as a group. The interviewee stated that they did not have a recruiting problem *per se*, by virtue of being related to an academic institution—but, there was a matter of getting the right fit between the prospective employee and the organization. UTIMCO was small enough that if someone who was not a good institutional fit were hired, it would tend to be conspicuous.

The interviewee said the team of investment managers was somewhat like a baseball team, in that really young, talented employees could eventually achieve a sort of free agency. On the other hand, the interviewee noted, if UTIMCO management really wanted to keep a person after five years of successful job performance, they could probably win the bidding war.

Regarding the possibility of a portfolio manager spinning off a separate company and continuing to manage assets for UTIMCO, the interviewee said that this would be handled on a case-by-case basis, but it would require UTIMCO Board approval. The interviewee said that at one point, there had been a group in the private equities division that had wanted to spin-off, but the UTIMCO Board opted not to approve their proposal. The interviewee stated that UTIMCO did not offer spin-off as a possibility in terms of recruiting new employees. Then again, the interviewee would not say that it would never happen, and observed that it was something that the Harvard Management Company (HMC) had permitted in a couple of cases. The interviewee stated that it would probably be hard to make such a policy work well at UTIMCO. The interviewee said that the size of the UTIMCO staff might grow to about 35 employees and perhaps eventually as many as 40.

The challenges inherent in educational endowment management

Creating a separate endowment management entity required a unique set of people, according to the interviewee, because it really was a great leap for a public university. There had to be a university administration that was willing to take itself out of the day-to-day management of the assets. For example, at the time of the interview, the assets managed at UTIMCO were worth more than all of the buildings owned by the UT System; they were the largest set of UT System assets. It required a strong and self-confident educational institution to take itself out of that day-to-day management, according to the interviewee. There also had to be a state legislature that was willing to pass legislation that made it possible, and the legislation had to be signed by the Governor. UTIMCO was a wholly-owned entity of the UT System, but it was still a private company managing its most significant asset. As the interviewee observed, "What does it look like to the average person in Texas reading the newspaper?" There were questions about the compensation of investment professionals relative to that of faculty members. One had to stretch all the pay scales to get good investment management people, whether the investment management entity resided inside the university administration or it was split into a separate entity. Given how complicated UTIMCO was, how politically charged its formation was, and how conservative the state was at the time, the interviewee observed that it said a lot about the people who worked to form UTIMCO that they were able to make it happen.

DUKE UNIVERSITY MANAGEMENT COMPANY (DUMAC)

The interview at the Duke University Management Company (DUMAC), conducted in June 2002, focused on (1) when and why Duke's investment management function was split into a separate investment management entity and the reasons for the split, (2) lessons learned from the formation of a separate investment management entity, (3) the formation of a solid ethics policy, (4) internal versus external fund management, and (5) UMIFA and spending policy.

Reasons for creating a separate investment management entity

According to the interviewee, just prior to DUMAC's formation, the investment management function could have been described as “one full-time investment professional and a bunch of clerks.” (The interviewee did not mention a specific number of employees devoted to investment management prior to 1989. Prior to DUMAC’s founding, the investment management and accounting functions were woven together.) In 1989, when endowment assets under management at Duke University had reached approximately $1 billion, DUMAC was formed. According to the interviewee, institutional investment goals came first, and DUMAC was envisioned as a way to meet those goals. Some of the reasons given for forming a separate investment management entity were (a) a desire to move investment policies towards greater participation in alternative investment instruments, (b) a desire to extract the investment management function from some of the more administrative details of investment accounting (such as the finer points of account number coding conventions), (c) an interest in creating an oversight board dominated by investment professionals, (d) the need to adapt to an increasingly complex investment world in which asset classes were expanding and settlement windows were contracting, (e) the need to be more effective in recruiting investment management professionals, (f) the need to move away from the sort of consensus-building management model required on a university campus toward the "top-down" decision-making system necessary for investment management decisions, (g) an interest in introducing additional asset classes into the endowment portfolio, and (h) the need to insulate the investment management function from some donor-relationship issues.

Lessons learned from the split

Among the lessons learned from forming a separate investment management entity, the interviewee listed the: (a) creation of a formal, comprehensive communication plan, (b) professionalization of the back office, and (c) considerations necessary to choose the right custodian bank.

A formal, comprehensive communication plan

The interviewee said that twice each year, representatives from DUMAC made formal presentations on campus, attended by a mix of constituents including faculty, students, administrators, and donors. This was done partly for symbolic reasons, in that the message it sent to constituents was one of openness:

it took away the “cloud of mystery,” and anyone who wanted to attend could do so. DUMAC advertised these presentations in the campus newspaper. As the interviewee observed, “a university environment is not a good place to have people perceive that you’re being secretive.” While DUMAC offices were physically separate from the core campus (located in a bank building rather than on Duke University grounds), DUMAC still considered itself to be part of the university community, ready to respond to questions.

Professionalization of the back office

Before it became a more widespread investment management practice, DUMAC reduced the amount of some of the redundant clerical work done, instead moving towards more broad-based controls, according to the interviewee. DUMAC transitioned to using the title of Performance Analyst for personnel that might be considered clerical workers in other investment management organizations. According to the interviewee, visitors at DUMAC were initially shocked to discover the kinds of things DUMAC chose not to do, especially with regard to auditing trades and monitoring various other custodian bank activities.

The interviewee typically posed the question to those visitors, "What did you catch in your own auditing of trades and custodian bank activities, that didn't get caught by someone else--and what did it cost you to catch that error?" As the interviewee noted, this was a way of creating more effective controls by focusing on results rather than on clerical details. The interviewee observed that the MCI/WorldCom financial scandal of 2001-2002 was particularly surprising, and wondered how MCI/WorldCom could have been doing "all kinds of expansion" while reporting such a low cost structure. The interviewee suggested that the mere appearance of balanced books was not an indication that all was well. Likewise, a clerical focus in the investment management world might give one a false sense of confidence and accomplishment. As the interviewee observed, "Why pay a custodian bank to fulfill a fiduciary duty if you're going to check every dividend and interest collection behind them? They have whole departments whose job it is to do that." Instead, the role of the back office at DUMAC, at the time of the interview, was to assess whether the custodian bank was doing that job effectively, and it was the intention of DUMAC employees to make the assessment and oversight function as cost-effective as possible.

DUMAC's external fund managers were contractually obligated to reconcile with the custodian. Instead of reconciling with the custodian bank once a month, DUMAC reconciled independently once a year. In doing such reconciliation less frequently, they enabled a full-time employee to help with more analytical and professional work. Instead of redundant keypunching, DUMAC focused on value-added analysis, according to the interviewee. While it was detailed work, it was not clerical in nature—it was really a form of quality control, according to the interviewee.

The DUMAC board shifted the mandate for DUMAC with respect to front office functions, according to the interviewee. They eliminated the trading room, and narrowed DUMAC's responsibilities over time. Any time an external entity could perform a function more efficiently or less expensively than DUMAC, that responsibility was outsourced. DUMAC expanded or contracted various components of the staff since its initial formation, but kept within 2-3 of its original headcount. DUMAC had 23 employees at the time of the interview.

DUMAC’s administrative costs were calculated in basis points, or one-hundredths of a percent. When originally formed, that cost was high, considering that assets under management were around $1 billion. DUMAC leaders planned at the outset to move into more alternative investments and venture capital, which carry higher administrative costs relative to other asset classes. The interviewee conceded that DUMAC was more expensive to run than if they had simply hired external consultants (instead of forming DUMAC), but such consultants would have come with their own constraints, requiring high-capacity tasks that could be spread across all their clients.

Choosing the right custodian bank

The interviewee noted that the custodian bank function became significantly more important in the early 1990’s, with the advent of electronic trading and the reduction of transaction settlement time. With that reduction, back office errors became more costly, and the choice of the right custodian bank increased in importance. Custodian banks converted from quarterly to daily record keeping systems, and there was a huge consolidation in the banking industry. The interviewee observed that custodian banks were not necessarily either good or bad, but they might be good or bad for particular tasks or functions. They had their own particular areas of expertise and their own strengths and weaknesses which had to be appraised in light of the needs and characteristics of the institution’s endowment.

Formation of a solid ethics policy: staff member portfolio policy

The interviewee said that DUMAC’s founders wrestled with how to create a solid ethics policy, and a “light of day” approach proved to be a helpful mechanism. The cleanest ethics policy might limit employees in what they could do with their own portfolios, but staff members also had to be able to apply their own investment management expertise to their personal portfolios.

At the time of the interview, DUMAC had a conflict of interest policy limiting the ability of employees to trade. For example, day trading was prohibited. There were also limits on the ability of staff members to co-invest with DUMAC. Such coinvestment required prior approval, and though the ethics policy did not mention it explicitly, staff members could not in practice receive a better investment deal than the University had negotiated for the same investment. (In the world of private capital, such investments were referred to as “friends and family” money, which might allow for a reduction or elimination of investment fees. DUMAC did not allow such special treatment for staffers at the time of the interview.)

The ethics policy prohibited the staff from accepting gifts. Outside work and relationships (whether paid or unpaid) had the potential for creating conflicts of interest. The ethics policy required that such arrangements receive prior approval from the president of DUMAC.

DUMAC had standardized the overall method of requesting approval of employee portfolio investments over the last few years, according to the interviewee. There was a set of guidelines which communicated the types of investments which were likely to be approved. For example, one such guideline had the effect of discouraging proposed investments that were disproportionately large relative to the staff member's net worth.

Finally, there was the requirement that staff members sign a quarterly statement that they did not have any conflicts of interest. In addition, staff members had to account for all non-mutual fund trading for each quarter. In summary, staff members had to disclose their trades, and they had to get prior approval to conduct business with an entity that had a pre-existing business relationship with the University.

Formation of a solid ethics policy: endowment portfolio policy

Ethical considerations extended beyond the portfolios of individual employees; DUMAC's ethics policy also addressed investment rules for the endowment portfolio itself. The policy specified that DUMAC staffers had no authority to invest the endowment in any other way than to maximize investment return. In other words, any constraints would have to come from the Duke University Board of Trustees, since they were the fiduciaries. When DUMAC was first created, its investment portfolio was free of investments in South Africa, by mandate from the Duke

University Board of Trustees. Trustees later removed that specific constraint in response to the changing political situation in that country.

Duke University Trustees might “sub-optimize” some investments by taking them out of the endowment proper, according to the interviewee, but DUMAC staff members could not make such decisions on their own. For example, there was at one time a desire on the part of Duke University Trustees to invest in North Carolina venture capital funds. Whereas DUMAC’s standing in the investment world permitted investment in top-tier venture capital funds, it was somewhat difficult for firms in North Carolina to be considered top-tier, according to the interviewee. Trustees desired to target some investments regionally, so some funds were moved from the quasi-endowment pool and invested in North Carolina-based venture capital. Whatever the Trustees’ mandate, it was the responsibility of DUMAC to obtain the best results possible within those constraints, according to the interviewee.

Internal versus external fund management

At the time of the interview, DUMAC used external fund managers and did not manage any funds internally, performing no individual security selection. DUMAC's staff did not consist of *investment* managers; rather, it employed internal *risk* managers. DUMAC entered into specific security selection only in extraordinary cases of over-arching rebalancing among asset classes, according to the interviewee. The internal managers did not pick stocks or fixed income instruments. (DUMAC did pick fixed income instruments in the first three years after DUMAC's founding, but at the time of the interview, the practice had been discontinued.)

On the other hand, the interviewee conceded that if DUMAC were larger, they might have done some of the non-active investment management functions internally (i.e. indexed investments by asset class). Part of that rationale was a function of the size of assets under management, and part of it was a function of the investment philosophy at DUMAC. The interviewee characterized DUMAC's approach to fixed income instruments as passive, external indexing. But he suggested that if there were a large enough pool of fixed income at DUMAC, they might have considered internal management, provided that there was sufficient internal staff for the task and that it could be done in a cost-effective way.

UMIFA and the impact on Duke / DUMAC

UMIFA was passed in 1985 in North Carolina. Prior to that time, most endowments were invested for yield rather than for total return, because the definition of principal did not permit investment on a total return basis. In 1984-85, the DUMAC endowment spending rate was in the neighborhood of 8.5-9%, and that comparatively high rate was beginning to have a serious impact on the long-term purchasing power of the endowment. Spending the interest and dividends did not take inflation into account, and the endowment purchasing power was actually decreasing. In 1985, in the wake of UMIFA, Duke began moving towards the total return model, and towards including more alternative investments in its portfolio.

HARVARD MANAGEMENT COMPANY (HMC)

The interview at Harvard Management Company (HMC), conducted in September 2002, focused on (1) the individual interviewee's background, (2) a brief history of HMC, (3) the HMC Board of Directors, structure and staff, (4) external management and spinoffs, (5) spending policy, (6) interaction between Harvard University’s Planned Giving Department and HMC’s Trusts & Gifts Department, (7) the HMC policy portfolio, and (8) the ethics policy at HMC.

Interviewee’s background

The interviewee had been working at HMC between two and five years at the time of the interview, with a career spent entirely in investment management, spanning roughly four decades. This individual had significant experience dealing with complex endowment funds.

Brief history of HMC

HMC was founded in 1974, the first company of its kind founded by a university in the United States. Prior to the formation of HMC, Harvard University used State Street Management and Research in Boston to manage its endowment. At the time, the Treasurer of Harvard was also a principal at State Street, and the firm managed Harvard University’s entire endowment. In 1974, the Treasurer retired from Harvard University. Upon retirement, the Treasurer recommended the formation of Harvard Management Company, given the fact that markets were getting increasingly complicated, and given that there were more and more asset classes in which to invest.

According to the interviewee, the Treasurer believed that a separate management company dedicated to Harvard University as its sole client would enable it to take full advantage of whatever asset classes it chose to invest in, and he believed it could be better done by an internal management company rather than one completely separate from the University like State Street. The creation and founding of HMC thus had to do with increasingly complicated markets, more asset classes, and finding one firm to do everything, such that Harvard's interests would come first.

HMC Board of Directors, structure, and staff

At the time of the interview, HMC was a wholly owned subsidiary of Harvard University. The HMC Board of Directors was appointed by the "President and Fellows of Harvard"—a term of corporate governance at Harvard dating back to the original charter in 1636. The Chairman of the Board was also the Treasurer of the University. The 12 other members of the HMC Board of Directors included the President of Harvard, as well as faculty, alumni, and other administrators of the university. Board meetings were held quarterly, typically a full day with a morning session of several hours. After his portion of the meeting, the Chairman of the HMC Board would turn the meeting over to HMC’s Chief Executive Officer. The CEO basically reviewed what was happening with the endowment and often brought three or four of the HMC portfolio managers to make presentations on what they were doing. There were discussions about risk and reward and about the status of the policy portfolio. The afternoon portion of the meeting was primarily concerned with more long-range thinking.

Jack Meyer had led HMC since 1990. Meyer came from a background in the investment business; he was the Chief Investment Officer of the Rockefeller Foundation in New York prior to joining HMC. He was a graduate of the Harvard School of Business, and his approach to investment management was highly quantitative and analytical, grounded thoroughly in portfolio theory, according to the interviewee. When Meyer arrived, he had to devise an investment strategy, and he did this through the creation of the Policy Portfolio (explained in more detail below).

HMC managed endowment funds, pension assets, a working capital fund, and planned gifts, at the time of the interview. The entire HMC staff consisted of 170-180 internal employees. Between 50% and 60% of the overall endowment was managed internally, according to the interviewee; the remainder was managed outside of HMC. Groups within HMC, as small as a few people or as large as seven to eight people, were charged with managing individual asset classes to beat internally established benchmarks.

Tobacco stocks were the sole type of stock that HMC was prohibited from holding at the time of the interview. There had been a prohibition on holding stocks for companies based in South Africa, but that prohibition ended several years prior to the interview.

Offices for HMC were physically separate from the the University campus at the time of the interview, but in general there was a feeling of close association, according to the interviewee. On the HMC Board of Directors, there was always representation by at least one key person from the administration of Harvard University—e.g., a vice president of finance.

External management and spinoffs

Several of the external management firms that HMC dealt with at the time of the interview were initially formed at HMC; over the course of the six years prior to the interview, they had been permitted by HMC to spin off as independent firms. Those spin-offs included (a) Charlesbank, (b) Adage Capital, (c) a high-yield bond manager, and (d) an absolute return manager.

The principal rationale for the spin-offs was to allow those firms to manage more money and thereby to enhance their own net worth, according to the interviewee. HMC gave these firms substantial assets to manage, so they were still very important to HMC, and HMC was still very important to them. Prior to the formation of those spin-off companies, HMC was investing 75% of its own assets internally, according to the interviewee. The primary exceptions to internal fund management (prior to the spin-offs) consisted of (a) private equity and (b) real estate, both in the form of outside partnerships. The interviewee noted that HMC had relationships with a few other outside firms prior to the four major spinoffs, but private equity and real estate were the primary examples.

Combined internal and external management existed for some asset classes at HMC at the time of the interview. For domestic equities, for example, there was both internal and external fund management. Prior to the spinoff of Adage Capital in Summer 2001, the bulk of the equities were managed internally. According to the interviewee, Adage Capital was "far and away the largest manager of [HMC's] domestic/U.S. equities" at the time of the study. But they made no bets on a "growth relative to value" style, and they made no bets relative to specific industries. Their entire portfolio was indexed to the S&P 900, except for tobacco stocks, which were prohibited by HMC. They tried to pick individual stocks within each industry category. They were allowed to go long and short; i.e., they ran their portfolio as a hedge fund. They utilized their expertise in picking those stocks within each industry category that were attractive relative to others. They built a portfolio on that basis, and they did very well, according to the interviewee. Every year, they outperformed the S&P 900, without exception, which the interviewee observed was rather remarkable. That is why they chose to spin themselves out. They did not, however, give HMC exposure to certain asset classes within the domestic equities market, such as very small-cap stocks—"mini" caps, that HMC's Board felt were important. In order to augment their exposure to domestic equities, HMC hired additional external firms, according to the interviewee.

The appropriate size of the spin-off companies was addressed on a case-by-case basis. To take one example offered by the interviewee, the absolute return manager (whom the interviewee noted had performed superbly) discussed with HMC a certain limit on the assets in this class that might be managed. Beyond that limit, the flexibility and liquidity of the assets would become too restricted. According to the interviewee, those were the sorts of topics discussed with all fund managers: "What is your target for assets that you would like to have under management? How do you intend to reach that target? What are your considerations in terms of how large HMC should be as a part of your overall assets under management?”

In every asset class, there was a certain problem with size, according to the interviewee. Domestic large-cap equities had the fewest problems, but even in that asset class, one could encounter problems with larger trades. Holding, buying, or selling as many as 25 million shares, even of a company with a market capitalization like that of General Electric, presented certain difficulties: trades that large could have a dramatic impact on the overall market. Asset liquidity was also a factor. Wide variations exist in size and liquidity across asset classes. HMC spent quite a bit of time thinking about and discussing asset size and liquidity with outside managers, but the interviewee said there had not been a case of sharp disagreement regarding how large outside managers should become.

Charlesbank did a substantial amount of HMC’s private investments at the time of the interview, but not all of them. HMC invested in other outside partnerships, especially in venture capital.

Spending policy

The spending rate for the endowment was set each year by the President and Fellows of Harvard University; it was done upon discussion with HMC, but the President and Fellows retained the final authority. The spending rate was typically set within a range of 4-5% of the endowment principal value, according to the interviewee. In the 1970's, the spending rate climbed above 5% because of the history of very poor returns during that decade. A few years prior to the interview, it dipped temporarily below 4%, because of the extraordinarily good returns.

In contrast with many universities that had stricter spending rules, such as 5% of a trailing 12 month average, Harvard (and M.I.T., the interviewee noted) set its spending rate each year within the 4-5% range. This approach took into consideration the fact that returns vary widely over time, whereas overall budgets tend to change much less often, according to the interviewee. The interviewee also observed that flexibility in the spending policy was more appropriate than an arbitrary or fixed policy.

Interaction between Harvard University's Planned Giving Department and HMC's Trusts & Gifts Department

At the time of the interview, the Trusts & Gifts Department at HMC had approximately 17-18 staff members with two primary responsibilities. They (a) processed, valued, and disposed of any non-cash gifts that came to the university, and (b) administered and invested all the planned gifts to the university (e.g., charitable remainder trusts, charitable lead trusts, pooled income funds, and gift annuities). Somewhat over $900 million existed in the planned gift category at the time of the interview.

The Department had its own Advisory Board which met three times each year, including members of the Planned Giving Office, the Development Office, and other university administrators. There was constant communication between HMC's Trusts & Gifts Department and the University's Planned Giving staff, and the Vice President of Trusts & Gifts at HMC made regular presentations to groups of alumni and current students, according to the interviewee. Proposed planned gifts could not be accepted by the University until HMC approved them.

HMC’s Trusts & Gifts department had established its own rate schedule for gift annuities. HMC’s table was slightly less generous than that of the American Council on Gift Annuities (ACGA), because HMC conducted its own independent study in the early- to mid-1990’s, and, about a year prior to the interview, reaffirmed the findings of that study. According to the interviewee HMC determined its rates based on the following:

> first, HMC assumed a long term rate of return from the endowment of 9%, and second, there was a requirement that if the actual return was up to 2 standard deviations under the assumed rate, there must still be something left for Harvard upon the death of the annuitant.

The difference between the two rate schedules was not dramatic, but, as mentioned, HMC’s rates were slightly lower than ACGA’s. The applicable rate schedule depended on the age of the prospective donor. HMC had minimum values for the size of separately managed trusts, and retained the authority to grant exceptions to the guidelines. The decision of HMC was final, according to the interviewee.

Another function of HMC’s Trusts & Gifts Department at the time of the interview was the processing, valuation, and disposal of all non-cash gifts (e.g., stocks, real estate, works of art, etc.). The Department had to decide whether there was sufficient charitable intent, and it retained the authority to decline proffered gifts. Harvard representatives used a rather detailed Gift Policy Manual written in agreement with HMC standards, and development officers of the various schools and colleges applied those guidelines, such as the minimum size of an endowed professorship.

Policy portfolio

HMC CEO Jack Meyer created the Policy Portfolio soon after his arrival in 1991. At the time of the interview, it consisted of 12 asset classes, and the performance of each asset was measured against a benchmark. The HMC Board of Directors approved each benchmark after thorough discussion. Some were difficult to establish, because the Policy Portfolio included some asset classes that did not have readily identifiable benchmarks. The policy portfolio changed over time, according to the interviewee, as necessitated by the evolution of new asset classes such as inflation-indexed bonds.

One unusual aspect of the Policy Portfolio was the negative allocation to cash (-5% at the time of the interview), which reflected explicit leveraging. Harvard had a "AAA" bond rating at the time of the interview, so it could borrow money at a very inexpensive rate. This leveraging strategy was based on the belief that, over the long term, an estimate of approximately 9% should be utilized as the rate of return for the endowment fund. A further assumption was that borrowing would be substantially cheaper than that 9% rate. The interviewee said that borrowing was, however, very risky, so the analysis with respect to leveraging cash was "very detailed and analytical."

Some of the asset classes in the Policy Portfolio could be leveraged, according to the interviewee. Domestic bonds was the primary asset class which was leveraged at the time of the interview. According to the interviewee, HMC chose not to make interest rate bets in the bond market as a matter of investment philosophy; what HMC tried to do was capitalize on what they believed to be asset mispricings between individual domestic bonds: for example, one government bond relative to another. Since some of the asset prices were not that far apart, the size of the trades in those assets had to be considerable, given the overall size of HMC's endowment. Because the assets being traded were either extremely high quality, highly liquid government bonds or corporate bonds, HMC believed that there was relatively little risk associated with the trading positions taken in the bond market. Counterparty risk (see Appendix B) was very carefully assessed at all times. The interviewee said that there was a very long list of counterparties that HMC dealt with, with very strict limits as to how much exposure there could be to each. Those exposures were reviewed at least every quarter, and even more often, if the CEO or the members of the bond department felt that something in the market had changed dramatically.

In sum, HMC believed there were very strict controls involved to manage its exposure. There was a much smaller amount of leverage that could be used in other asset classes, according to the interviewee. There was some equity leverage, but in comparison that leverage was rather tiny, according to the interviewee.

Ethics policy

At the time of the interview, HMC had a strict code of ethics. It also sought to understand the ethics policies of its external managers. Employees of HMC trading for their own account had to get prior approval for the trade and had to instruct the broker to send a duplicate copy of the trade statement directly to HMC's compliance department. For equity trades, employees had to notify HMC's equity desk of each impending trade. HMC kept complete records of all employee trades, according to the interviewee.

The Board of Directors reviewed any case where there was the "slightest hint of a conflict of interest," according to the interviewee. HMC permitted some of its private equity managers to serve on some boards of directors of companies in which it had an interest. Such situations were reviewed at least annually, and they were made public and approved by the HMC Board of Directors.

At the time of the interview, there was a small list of stocks in which employees were forbidden to trade, because HMC owned either a controlling interest or a large minority interest. Those cases were typically very small companies that might have spun out of a venture capital company.

SUMMARY

The four background interviews on the OAM/UTIMCO transition helped to explain some of the factors leading to the formation of UTIMCO in 1996. The three primary interviews on UTIMCO, DUMAC, and HMC revealed considerable variation in the degree of internal versus external fund management and the internal scope and structure of the three entities. Interviewees addressed all of the research questions in this study to some degree, including the establishment of spending and ethics policies, and the role of portfolio composition in driving endowment returns. The following chapter outlines the major conclusions of the study and suggests several areas for further research.

Chapter 5: Conclusions and directions for future research

CONCLUSIONS

This research project set out to determine how the endowment management structures and systems of UTIMCO, DUMAC, and HMC differed, and to determine why UTIMCO was formed in 1996. Several themes emerged from the seven interviews conducted with investment managers and educational administrators.

In deciding whether to create a separate endowment management entity, the following should be kept in mind: professionalization of the oversight board; regular and formal channels of communication; the advantages of in-house versus outsourced fund management; professionalization of the back office; the formation of spin-off companies; the extent to which the labor market for the recruitment and retention of professional staff is local, regional, or national (and the extent to which the working environment might mitigate the risk of paying lower than market salaries); formation of a solid ethics policy; and creation of a separate endowment management entity to further the goals of the fund. The academic literature on investment management foreshadowed the author’s direct experience with these topics, and these were the themes that emerged most clearly from this study. The following sections will explain the degree to which each theme was influenced by the interviews conducted at each entity.

Professionalization of the oversight board

In the case of the University of Texas System, a lack of investment experience and investment expertise in the oversight board was one of the primary reasons interviewees offered for creating a separate investment management company with its own separate oversight board. The goal was to create a board dominated by investment professionals. Prior to the formation of UTIMCO as a separate 501(c)(3) company, the previous internal endowment management entity (the Office of Asset Management) formed an Investment Advisory Council to strengthen its credibility with an oversight board that was at the time dominated more by individuals successful in business and in leadership than in investment management.

The DUMAC interview revealed a similar motivation at Duke University in 1989 to create a separate investment management entity with its own board dominated by investment management professionals. Perhaps because the founding of HMC occurred nearly three decades prior to the present study, either this was not a compelling reason, or that rationale was not preserved as part of HMC’s institutional memory. Instead, as mentioned in the previous chapter, the creation and founding of HMC had more to do with increasingly complex markets, more and more asset classes, and creating one firm to keep Harvard University’s interests first.

Regular and formal channels of communication

All interviewees stressed the importance of maintaining regular and formal channels of communication with campus development officers in particular and with other constituents in general.

DUMAC and UTIMCO both relied heavily on Web-based reporting to communicate with benefactors and to relay information about endowment performance to various constituents. In the case of UTIMCO, there was a fairly substantial Web-based application used to disseminate endowment reports to the component institutions of the University of Texas System spread across the state. HMC relied on more traditional means of communication, including individualized letters to "friends of Harvard" and various constituents. Interviewees at both HMC and DUMAC emphasized their fairly regular presentations to members of their campus communities; such face-to-face meetings are easier to conduct when a management company serves one main campus rather than several, as in the case of UTIMCO.

Managing funds internally versus externally

With 23 employees, DUMAC conducted only risk management (and not individual security selection) in-house, choosing to use external fund managers for all specific security selection. HMC was at the opposite end of the spectrum, with 170 employees managing 50-60% of its assets internally. UTIMCO outsourced 90% of its fund management and had 31 employees. The primary considerations indicated by interviewees regarding internal versus external management were the size of assets under management and the likelihood of achieving superior investment returns. The raw cost of internal versus external management was not the overarching consideration.

Professionalization of the back office

DUMAC in particular highlighted the increasingly professional nature of the work done by the back office staff, and the amount of clerical work done there had been reduced in the interest of efficiency. The focus at DUMAC was on effective controls and on confirming that the custodian bank fulfilled its fiduciary duties.

This theme of professionalizing the back office did not arise in the interviews at UTIMCO or at HMC. One might speculate that UTIMCO management would be less likely to reduce the amount of detailed auditing work done, at least in part due to the intense public scrutiny and political pressure faced by an entity entrusted with public funds. On the other hand, given UTIMCO's ready acceptance of the role of educating its constituents (citizens, legislators, and the campus communities) about investment management practices, its leaders could make a convincing case that greater efficiency and more effective controls need not require current levels of clerical effort.

HMC might be in a better position to streamline such back office functions, given the significantly larger scale of its internal operations and its larger staff. As with UTIMCO, though, this theme did not emerge in the course of the interview at HMC, and the author did not raise the topic.

Deciding whether to allow the formation of spin-off companies

HMC permitted the formation of four substantial investment management companies, and was the only one of the three entities studied that allowed such spin-offs to occur. Perhaps due to the size of its endowment and its institutional maturity, HMC was able to attract several of the best fund managers in the country; HMC leaders chose to allow spin-offs in certain circumstances, perhaps in order to maintain a mutually rewarding relationship with those fund managers.

The UTIMCO interviews pointed out that the low potential for fund managers to create their own spin-offs was a limiting factor in fund manager recruitment. In addition, it was unlikely that the general UTIMCO policy tradition of discouraging spin-offs would ease, given the political climate in which UTIMCO operated.

Staff recruitment and retention

One of the reasons given for the formation of UTIMCO was that it would aid in the recruitment and retention of the professional staff for there to be a degree of separation from the university campus. Interviewees argued that, for the most part, investment professionals aspire to work in financial settings.

Several interviewees pointed out that each investment management company needs to determine the extent to which its recruitment and retention of professional staff should be directed at the local, regional, or national labor markets. Further, they must consider the extent to which the working environment (city, state, and "quality of life" concerns) might mitigate the risk of paying lower salaries than market forces might otherwise dictate.

Each of the three investment management companies maintained office space in bank buildings rather than on the main university campus. This separation could be driven by space constraints on campus, but most interviewees suggested that it was a conscious choice made to help attract more qualified managers.

Formation of a solid ethics policy: staff portfolios and endowment portfolios

There seemed to be a particularly high ethical standard set for each of the management companies studied. There was considerable scrutiny on UTIMCO given that the endowment it managed benefited state university systems. Just prior to this study, there were ethics-related policy changes, including a decision to require disclosure of certain private investments at UTIMCO as a result of the heightened scrutiny of public endowment management in Texas.

At the time of the interviews, the primary endowment funds at DUMAC and UTIMCO were invested with the sole goal of maximizing return on investment. HMC had a prohibition against investing in tobacco-related securities, but with that single exception, followed that same model. In all three cases, the investment management entity had strict controls over employee trading and employee portfolios to minimize the possibility of apparent and actual conflicts of interest.

The UTIMCO interviews in particular called attention to the ethical implications of designing a stable spending policy and providing a steady revenue stream for current and future generations of students. Guaranteeing some kind of intergenerational justice by assuring that proceeds from the endowment would continue forever is not typically thought of as part of the ethics policy, but the argument was made that it should be thought of as such. Spending policy has an enormous impact on the long-term health of the endowment, and ill-considered decisions can adversely impact future generations. (The scholarly literature written in response to John Rawls's seminal work *A Theory of Justice* provides a good analytical framework for such considerations of intergenerational justice.)

Swensen (2000) led to the author to believe that, given the infinite time horizon of educational endowments, it is unethical to invest with only minimal risk. Such an approach would necessarily cause depreciation of the principal over time, thereby eroding the endowment's purchasing power. One might also argue that educational endowments should be among the riskiest funds in overall outlook, though that could only be possible in combination with significant insulation of the spending policy from political and other transient forces.

Whether to create a separate investment management entity

The HMC interviewee observed that one of the reasons Harvard University created HMC was because it wanted to ensure that Harvard was the sole customer of its endowment management entity. HMC had departed somewhat from that original vision by permitting the formation of four spin-off companies, but as indicated by the HMC interview, relationships with those external managers were carefully monitored, and HMC retained oversight responsibilities for all such activities on behalf of Harvard alone.

The original vision for UTIMCO was that a separate investment management entity might be able to avoid some of the open records requests that distracted the Office of Asset Management (OAM) staff. That has not been the case. Another reason offered for formation of UTIMCO was that it needed a Board dominated by investment management professionals. It had such a Board at the time of the interview, but it is reasonable to speculate whether the UT System Board of Regents could have granted the forerunner of the UTIMCO Board--the Investment Advisory Committee, created during the OAM days—-more responsibility and authority for overseeing the work of the OAM. That would have obviated the need for the formation of a separate company.

Given that the formation of UTIMCO has already taken place, however, it does not seem likely that the endowment management function will be reintegrated within the UT System. Such considerations of empowering the oversight board and staffing it with investment professionals might, however, give pause to leaders of other public university systems who might be considering the creation of their own separate investment management entities.

Directions for Future Research

There are several possibilities for future study implied by this work. A researcher might: (a) compare a large public university having a separate endowment management entity with a large public university which integrates its endowment management function within its administrative structure; (b) conduct additional, in-depth interviews covering all organizational levels at one management entity; or (c) focus solely on ethics policy formation at endowment management companies.

Officials at UT System took a bold step in 1996 by creating the first separate investment management entity for a large public university. Swensen (2000, p. 339) has suggested that such a separation is counterproductive because of the tendency to treat the separate company solely as an investment entity, leaving spending policy creation and enforcement to others. This is a serious concern, and a comparative study between public universities with and without separate investment management entities would serve to confirm or deny Swensen’s assertion.

In-depth interviews at a single investment management entity would give a more balanced account of how well the entity functions at all levels. The present study focused on leaders at such investment management entities, but it would be worthwhile to consider rank-and-file employees as well (from clerks to fund managers), to get a better sense of the working environment and the relationships between stated institutional goals and actual practices.

Ethics policy creation, maintenance, and enforcement is a particularly interesting and compelling subset of the structural issues facing investment management entities, particularly those serving public institutions due to the increased public scrutiny they enjoy. A wider study focusing on ethics policies at several large endowment management entities might lead to a “best of breed” approach to ethics policy formation. Founders of UTIMCO charged their advisors with conducting such a study, but it would help to explore even more of the variety found in ethics policies across the country.

FINAL THOUGHTS

At this writing, given the mid-2003 economic and political turmoil (with an enduring bear market and states cutting funding to public institutions of higher education), endowment management effectiveness is more important than ever. Colleges and universities have only a few potential revenue streams, from tuition and fees to new donor gifts and auxiliary enterprises. The gaps between endowments for the top public and private institutions are wide: Harvard University had $907,301 endowment dollars per student, while UT System had just $72,566 per student in 2002 (Chronicle of Higher Education Almanac 2003-2004, August 29, 2003, p. 27).

Moreover, Harvard's endowment payout met 32% of annual operating expenses, while UT System's endowment payout met less than 8% of operating expenses in 2002 (Harvard University, 2002, p. 11; UT System, October 2003, p. 1). Educational administrators should look to major endowment management entities with a view to maximizing their effectiveness and the contributions they can make to the educational enterprise. Their constituents (students, faculty, donors, and others) will expect only the best in their stewardship of endowment funds for centuries to come.

Appendix A: Categories of Endowments and Similar Funds

There are three principal categories of endowments and similar funds, according to Greene (1992):

1) *Endowment funds* (sometimes referred to as "true endowment" funds) are funds received from a donor with the restriction that the principal is not expendable.

2) *Term endowment funds* are funds for which the donor stipulates that the principal may be expended after a stated period or upon the occurrence of a certain event.

3) *Funds functioning as endowment* (sometimes referred to as "quasi-endowment" funds) are funds that are established by the governing board to function like an endowment fund but which may be expended at any time or at the discretion of the governing board.

There is another category of funds worth mentioning: *annuity and life income funds*, which represent gifts or bequests subject to payment of income or specified amounts to one or more beneficiaries for life. These are not institutional funds as defined by the Uniform Management of Institutional Funds Act, but they become such on the death of the last beneficiary if they are restricted for endowment purposes.

Appendix B: Glossary

The following definitions, deemed to be the most relevant to educational endowment management, are included as a general guide. They have been extracted primarily from Downes (1998) and Shook & Shook (1990). In cases where a concise definition was unavailable, sections from Swensen (2000) and others are included.

Absolute Return Investing: "First identified as a distinct asset class by Yale University in 1990… [it is] dedicated to exploiting inefficiencies in pricing marketable securities" (Swensen, 1990, p. 114). Event-driven techniques include merger arbitrage and distressed security investing; value-driven techniques "employ off-setting long and short positions to eliminate market exposure." Such investments have a relatively short time horizon, from several months to two years (Swensen, 1990, p. 114).

Alternative investments / alternative asset class: Anson (2002) differs with Swensen (2000) and others on this definition. According to Anson, "In most cases, alternative assets are a subset of an existing asset class. This may run contrary to the popular view [i.e. the view of Swensen and others] that what many consider separate 'classes' are really just different investment strategies within an existing asset class" (Anson, 2002, p. 1). "Specifically, most alternative assets derive their value from either the debt or equity markets" (Anson, 2002, p. 1). "… We classify five types of alternative assets: hedge funds, commodity and managed futures, private equity, credit derivatives, and corporate governance" (Anson, 2002, p. 1). See also Jaeger (2002), pp. 17-37. Interviewees in the present study did not use this terminology, instead referring to more specific asset classes like venture capital or hedge funds.

Amortization: "accounting procedure that gradually reduces the cost value of a limited life or intangible asset through periodic changes to income. For fixed assets the term used is depreciation, and for wasting assets (natural resources) it is depletion, both terms meaning the same thing as amortization… Amortization also refers to the reduction of debt by regular payments of interest and principal sufficient to pay off a loan by maturity” (Downes, 1998, p. 23).

Annuity: “Form of contract sold by life insurance companies that guarantees a fixed or variable payment to the annuitant at some future time, usually retirement” (Downes, 1998, p. 26).

Appreciation: “increase in the value of an asset such as a stock, bond, commodity, or real estate” (Downes, 1998, p. 27).

Arbitrage: “Profiting from differences in price when the same security, currency, or commodity is traded on two or more markets” (Downes, 1998, p. 27).

Asset allocation: “Apportioning of investment funds among categories of assets, such as cash equivalents, stock, fixed-income investments, and such tangible assets as real estate, precious metals, and collectibles. Also applies to subcategories such as government, municipal, and corporate bonds, and industry groupings of common stocks. Asset allocation affects both risk and return and is a central concept in personal financial planning and investment management" (Downes, 1998, p.30).

Basis point: "smallest measure used in quoting yields on bills, notes, and bonds. One basis point is .01%, or one one-hundredth of a percent of yield. Thus, 100 basis points equal 1%" (Downes, 1998, p. 48).

Bond: "any interest-bearing or discounted government or corporate security that obligates the issuer to pay the bondholder a specified sum of money, usually at specific intervals, and to repay the principal amount of the loan at maturity" (Downes, 1998, p. 59).

Bond rating: "method of evaluating the possibility of default by a bond issuer... ratings range from AAA (highly unlikely to default) to D (in default). Bonds rated BB or below are not investment grade—in other words, institutions that invest other people's money may not under most state laws buy them" (Downes, 1998, p. 62).

Book value: "value at which an asset is carried on a balance sheet… its book value at any time is its cost minus accumulated depreciation…book value can be a guide in selecting underpriced stocks and is an indication of the ultimate value of securities in liquidation" (Downes, 1998, p. 63). "[With regard to alternative assets] the value of private securities cannot be determined by market trading. The value of the private securities must be estimated by book value, appraisal, or determined by a cash flow model" (Anson, 2002, p. 7).

Cash equivalents: "Investments with a high level of liquidity" (Shook & Shook, 1990, p. 56). Bruce, relying on NACUBO (1997), notes that this category could include "Treasury bills, commercial paper, certificates of deposit, [and] nonconvertible bonds with remaining maturities of less than one year" (Bruce, 1999, p. 10).

Charitable remainder annuity trust: "A trust fund with the stipulation that at least 5 percent of the initial fair market value of property held in the trust is to be distributed annually to a noncharitable beneficiary, with the remainder going to a charity" (Shook & Shook, 1990, p. 61).

Charitable remainder trust: "irrevocable trust that pays income to one or more individuals until the grantor's death, at which time the balance, which is tax free, passes to a designated charity. It is a popular tax-saving alternative for individuals who have no children or who are wealthy enough to benefit both children and charity" (Downes, 1998, p. 91). "The charitable remainder trust is the reverse of a *charitable lead trust*, whereby a charity receives income during the grantor's life and the remainder passes to designated family members upon the grantor's death. The latter trust reduces estate taxes while enabling the family to retain control of the assets" (Downes, 1998, p. 91).

Common stock: "A unit of ownership in a public company for which the holder can vote on matters and receive dividends from the company's growth, but he or she is the last to receive assets if the company liquidates. It differs from preferred stock in that preferred stock has a set dividend rate" (Shook & Shook, 1990, p. 72).

Cost basis: "The original cost of an asset less depreciation" (Shook & Shook, 1990, p. 84).

Counterparty risk: Hedge fund managers trading in over-the-counter derivative instruments are engaging in private contracts between the hedge fund manager and his/her counterparty. The counterparty is often a large Wall Street investment house or large money center bank. When a hedge fund manager negotiates these custom derivative contracts with a counterparty, the hedge fund manager takes on the credit risk that the counterparty will fulfill his/her obligation under the contract (Anson, p. 81). Changes in counter-party policies and/or the withdrawal of counter-party funding support can cause severe losses in alternative investments (Jaeger, p. 139).

Derivative: "Short for *derivative instrument*, a contract whose value is based on the performance of an underlying financial asset, index, or other investment. For example, an ordinary *option* is a derivative because its value changes in relation to the performance of an underlying stock. A more complex example would be an option on a futures contract, where the option value varies with the value of the futures contract which, in turn, varies with the value of an underlying commodity or security. Derivatives are available based on the performance of assets, interest rates, currency exchange rates, and various domestic and foreign indexes. Derivates afford leverage and, when used properly by knowledgeable investors, can enhance returns and be useful in hedging portfolios" (Downes, 1998, p. 147).

Efficient markets: "The U.S. public stock and bond markets are generally considered to be the most efficient marketplaces in the world… This means that all publicly available information regarding a publicly traded corporation, both past information and present, is fully priced in that company's traded securities" (Anson, 2002, p. 7). "In contrast, with respect to alternative assets, information is very difficult to acquire" (Anson, 2002, p. 7).

Endowment: "Permanent gift of money or property to a specified institution for a specified purpose. Endowments may finance physical assets or be invested to provide ongoing income to finance operations" (Downes, 1998, p. 176). See also Appendix A, "Categories of endowments and similar funds."

Endowment current income: "The sum of stock dividends, bond interest, cash equivalent interest, rents, royalties, and other net cash flows earned by assets held in the endowment over a specific period–does not include principal appreciation" (Bruce, 1999, p. 11).

Externally managed assets: "Those assets, including pooled assets, managed by individuals or firms outside an institution" [or company] (NACUBO, 1997, as cited in Bruce, 1999, p.11).

Hedge fund: "Private investment partnership (for U.S. investors) or an off-shore investment corporation (for non-U.S. or tax-exempt investors) in which the general partner has made a substantial personal investment, and whose offering memorandum allows for the fund to take both long and short positions, use leverage and derivatives, and invest in many markets. Hedge funds often take large risks on speculative strategies, including program trading, selling short, swaps, and arbitrage. A fund need not employ all of these tools all of the time; it must merely have them at its disposal. Since hedge funds are not limited to buying securities, they can potentially profit in any market environment, including one with sharply declining prices. Because they move billions of dollars in and out of markets quickly, hedge funds can have a significant impact on the day-to-day trading developments in the stock, bond, and futures markets" (Downes, 1998, p. 255).

Historical dollar value: "The aggregate fair value in dollars of the endowment fund at the time it became an endowment fund, each subsequent donation to the fund at the time it is made, and each accumulation made pursuant to a direction in the applicable gift instrument at the time it is added to the fund" (Daugherty, 1994, as cited by Bruce, 1999, p. 11).

Internally managed assets: "Those assets managed by individuals or committees within an institution" [or company] (NACUBO, 1997, as cited in Bruce, 1999, p.11).

Investment committee: "The subcommittee of the institution's governing board responsible for endowment and other investment management" (Daugherty, 1994, as cited by Bruce, 1999, p. 11).

Investment pool: "The legal grouping of assets that permits a broad diversification of investments and economies of administration and accounting" (Greene, 1992, as cited by Bruce, 1999, p. 11).

Large cap: "Stock with a large capitalization (numbers of shares outstanding times the price of the shares). Large Cap stocks typically have at least $5 billion in outstanding market value" (Downes, 1998, p. 315).

Liquidity: The degree to which assets can be sold and converted rapidly to cash. "Active managers pursuing inefficiencies frequently gravitate toward relatively illiquid markets… [identifying] opportunities to establish positions at meaningful discounts to fair value" (Swensen, p. 87). Specific assets or asset classes that might be considered highly liquid in smaller quantities can become illiquid in very large quantities (e.g., one thousand shares of General Electric stock versus fifty million shares of the same stock).

Marketable securities: "Stocks, bonds, or notes that are traded in various [public] markets" (NACUBO, 1997, as cited by Bruce, 1999, p. 12).

Nonmarketable securities: "Investments that are not traded in the marketplace (e.g., venture capital, leveraged buyouts, and oil and gas). Sometimes referred to as alternative investments" (Bruce, 1999, p. 12).

Policy Portfolio: A description of the target asset mix across asset classes which is intended to achieve the desired balance between risk and return.

Price/Earnings ratio: "price of a stock divided by its earnings per share… the price/earnings ratio, also known as the multiple, gives investors an idea of how much they are paying for a company's earning power. The higher the P/E, the more investors are paying, and therefore the more earnings growth they are expecting" (Downes, 1998, pp. 465-66).

Prudent investor rule: replaced the *prudent man rule* in the third restatement of trust law issued by the American Law Institute in 1992. It gives trustees "more latitude in the exercise of their investment responsibility," addressing risk and return, inflation-adjusted real return, and investments viewed in total rather than in isolation. Underlying the rule is the proposition that "no investment vehicles or investment management techniques are imprudent per se" (Bruce, 1999, pp. 12, 22-23; see also Welch, 1991, and Harvard College V. Amory, 9 Pick. (26 Mass.) 446, 461 (1830), as cited in Bruce, 1999.). It thus allows for a more contextual, holistic approach to evaluating the prudence of investments.

Real Estate Investment Trust (REIT): A "company, usually traded publicly, that manages a portfolio of real estate to earn profits for shareholders.

Patterned after investment companies, REITs make investments in a diverse array of real estate such as shopping centers, medical facilities, nursing homes, office buildings, apartment complexes, industrial warehouses, and hotels" (Downes, 1998, p. 491).

Settlement date: "Date by which an executed order must be settled, either by a buyer paying for the securities with cash or by a seller delivering the securities and receiving the proceeds of the sale for them" (Downes, 1998, p. 560).

Small cap: "Shorthand for small capitalization stocks or mutual funds holding such stocks. Small cap stocks usually have a market capitalization (number of shares outstanding multiplied by the stock price) of $500 million or less. Those under $50 million in market cap are known as microcap issues" (Downes, 1998, p. 572).

Spending rate: Amount of endowment income used to pay current expenditures. This is usually less than total endowment income, since a portion of the endowment income may be added back to the principal as a hedge against inflation in order to preserve the long-term purchasing power of the endowment.

Survivorship bias: "Occurs when data samples exclude markets (or investment funds or individual securities) that disappear" (Swensen, 2000, p. 61n). Such data samples overstate return and understate risk (Swensen, 2000, p. 61n). "Survivorship bias causes active managers to appear stronger as a group" at times because "compilations of return data may include only results of managers active at the time of the study" (Swensen, 2000, p. 79).

Total return: The "annual return on an investment including appreciation and dividends or interest. For bonds held to maturity, total return is yield to maturity. For stocks, future appreciation is projected using the current price/earnings ratio" (Downes, 1998, p. 654).

UMIFA (Uniform Management of Institutional Funds Act): provides colleges, universities, and other charitable corporations with the total return concept, "broad powers of investment authority," "the authority to delegate investment management decisions," and a method for waiving restrictions on the use of endowment funds (NACUBO, 1980, as cited in Bruce, 1999). According to Williamson (1993), "this legislation authorizes the spending of a prudent portion of appreciation in addition to what is ordinarily defined as income" (as cited in Bruce, 1999, pp. 13-14).

Yield to Maturity (YTM): a "concept used to determine the rate of return an investor will receive if a long-term, interest-bearing investment, such as a bond, is held to its maturity date. It takes into account purchase price, redemption value, time to maturity, coupon yield, and the time between interest payments" (Downes, 1998, p. 713).

Appendix C: Interview Protocol

QUESTIONNAIRE FOR DIRECTOR/CEO OF SEPARATE INVESTMENT MANAGEMENT ENTITY, AND FOR OTHER PERSONS KNOWLEDGEABLE ABOUT EDUCATIONAL ENDOWMENT MANAGEMENT

Purpose: To determine current and past endowment management practices as supporting research for a dissertation in Higher Education Administration being completed by Michael J. Craigue at the University of Texas at Austin.

Selection Criteria and Participation: You are among 15 or less individuals who have been selected for this study on the basis of your knowledge of, and experience with, educational endowment management. Your participation is entirely voluntary, and your response to subsequent inquiries or questions will be voluntary. You have the option to answer none, some, or all of the questions. You may withdraw from participation in this study by choosing not to be interviewed.

Risks: Risks of participating in this study are minimal.

Benefits: Benefits of participating in this study might include an increase in the understanding of the endowment management function and an addition to the scholarly literature on this subject.

Privacy: Your participation in this study is considered public to the extent that your comments and responses may or may not be included in detailed or summary form in the resulting dissertation. If your comments and responses are included in the resulting dissertation, you will not be identified by name, but some general indication of your knowledge of, and experience with, the subject matter will be made.

Contact: Professor William F. Lasher, Vice Provost, The University of Texas at Austin, 512-nnn-nnnn.

Principal Investigator: Michael J. Craigue, (512) nnn-nnnn.

Records retention: With your permission, this interview may be tape recorded, and the tape or notes will be kept securely in the possession of the interviewer (principal investigator) and may be reviewed by the interviewer at a future date. The interviewer has no intention of releasing these tapes to a third party. You may keep this questionnaire form and any cover letters for your records.

Part One

1. What is the organizational structure of the investment management entity, and what is the nature of the relationship between the investment management entity and the educational institution that it supports?

2. What is the target asset mix or general range for the asset mix (private investments, public equities, bonds, cash, real estate, etc.…), and how has the target asset mix or general range for the asset mix changed over the last 5 years?

3. How, and to what extent, are external fund managers used, and how has that changed over the last 5 years?

4. What considerations are given to private investments in terms of due diligence and evaluation of investments for potential conflict of interest, and what sort of supervision or review is made of private investment decisions after they are made?

5. What is the spending policy, and to what extent does the educational institution or the

investment management entity set that policy? Has that spending policy been revisited in light of recent dramatic fluctuations in the public equity markets?

6. What is the investment management entity's written ethics policy, and how is it followed in practice? What revisions have been made to the ethics policy over the last 5 years, and have any revisions been affected by external events?

7. Does the investment management entity have sufficient privacy from public scrutiny in the analysis of, and deliberation over, various investment instruments, and would the entity's effectiveness be strengthened were it to have greater freedom to deliberate in private?

8. How, and to what extent, does the investment management entity interact with the planned giving / university development office in terms of setting up new gifts?

9. What sort of reporting is provided to donors or foundations to inform them of return on investment and other aspects of the endowment management function?

10. What is the size of the staff, and how has the size of the staff changed over the last 3 years?

11. How would the investment management function be different if this entity were an integral part of the educational institution it served? In other words, what would be the impact on investment management effectiveness if the investment management function were not exercised by a separate entity?

12. What is the endowment management entity’s policy on the acceptance of new restricted endowments? (Are there any limits on the types of restrictions that are acceptable, and do restrictions place additional burden on the administration of these restricted endowments?)

13. What are the plans for the future?

Part Two (The following questions were used, according to the individual circumstances of the interview.)

1. What were the conditions at the University of Texas System leading to the consideration of a re-organization in the way that endowments were managed?

2. What data was collected, or what studies were conducted, and by whom, in order to determine the best course of action for a re-organization of the endowment management function that led to the

formation of the University of Texas Investment Management Company (UTIMCO)?

References

Academy for Educational Development (1985). *Association of Governing Boards report: improving endowment management*. Washington, DC: (ERIC Document Reproduction Service No. ED 263 816).

Adams, R.H. (1972, March). Current trends in college and university investment policies and practices. *Studies in management*, (Vol. 1, No. 3). Washington, DC: National Association of College and University Business Officers.

Alwin, L. F. (1996, November). *A review of controls over investment practices at six major state investing entities* (Rep No. 97-014). Austin, TX: Office of the State Auditor.

Alwin, L. F. (1999, January). *An audit report on endowment fund investment management at the Texas state university system* (Rep. No. 99-021). Austin, TX: Office of the State Auditor.

Anson, M.J.P. (2002). *Handbook of alternative assets*. New York: John Wiley & Sons.

Berens, J.L. (1994). *A primer on post modern portfolio theory*. Collins rationale, Vol 1, No 13, p. 16.

Bowen, H.R. (1969, August). Supplementary comments by committee members. *Managing educational endowments: Report to the Ford Foundation*, p. 50. New York, NY: (ERIC Document Reproduction Service No. ED 032 832).

Brinson, G.P., Singer, B.D., & Beebower, G.L. (1986, July-August). Determinants of portfolio performance. *Financial Analyst Journal*, pp. 39-44.

Brinson, G.P., Singer, B.D., & Beebower, G.L. (1991, May-June). Determinants of portfolio performance II: an update. *Financial Analyst Journal*, pp. 40-48.

Bruce, C.W. (1999). An analysis of the effects of endowment management practices on portfolio performance. Unpublished doctoral dissertation, Auburn University.

Cary, W.L., & Bright, C.B. (1969). *The law and the lore of endowment funds; report to the Ford Foundation*. New York: Ford Foundation.

Chronicle of Higher Education (1997). *Almanac*. The nation's resources, revenue and expenditures of colleges and universities. p. 30.

Cornyn, J. (1999, November). *Re: Whether the scope of a general request for information submitted to a governmental body includes information not in the possession of the governmental body but created and maintained by private counsel engaged by the governmental body; the scope of a governmental body's responsibilities in requesting clarification or narrowing of a request for information; and related questions (ORQ-32)* (Open Records Decision No. 663). Austin, Texas: Office of the Attorney General.

Daugherty, M.S. (1990). UMIFA: The implications for private college board of regents. *West's Education Law Reporter*, Vol. 57, No. 1, pp. 319-331.

Daugherty, M.S. (1994). Endowment management process at private four-year post secondary educational institutions in Minnesota (Doctoral dissertation, University of Minnesota, 1993). *Dissertation Abstracts International*, A54 (09),3322.

Devito, P.A. (1978). Evaluation and management of investment alternatives: a conceptual and programming model integrating the investment and financing decisions. Unpublished doctoral dissertation, The University of Texas at Austin.

Dobbins, R., Witt, S.F., & Fielding, J. (1994). *Portfolio theory and investment management: An introduction to modern portfolio theory* (2nd ed.). Oxford: Blackwell Publishers.

Downes, J., & Goodman, J.E. (Eds.). (1995). *Barron's dictionary of finance and investment terms* (4th ed.). Hauppauge, NY: Barron's Education Series, Inc.

Downes, J., & Goodman, J.E. (Eds.). (1998). *Barron's dictionary of finance and investment terms* (5th ed.). Hauppauge, NY: Barron's Education Series, Inc.

Duke University Management Company (2002). Structure and governance. Durham, NC: UTIMCO. http://www.dumac.duke.edu/

Dunn, J.A. (1991). How colleges should handle their endowments. *Planning for higher education*, Vol 19, No. 3, pp. 32-37.

Edie, J.A., & Smith, L.S. (1993, November-December). Investing in U.S. Securities is a violation of your fiduciary duty. *Foundation News*. pp. 24-30.

Eliot, S.A. (1848). *Sketch of the history of Harvard College*. Boston: Charles C. Little and James Brown.

Ellis, C.D. (1993). *Investment policy: how to win the loser's game* (2nd ed.). Homewood, IL: Business One Irwin.

Ellis, C.D. (1994). Investing policy and challenges. In J.R. Squires (Ed.), Investment Policy: seminar proceedings pp. 6-15. The proceedings of the sixth annual joint SAAJ-AIMR seminar, which was held April 18-20, 1994, in Tokyo, Japan.

Elton, E.J., Gruber, M.J., Das, S. & Hlavka, M. (1993). Efficiency with costly information: a reinterpretation of evidence from management portfolios. *The Review of Financial Studies*, Vol. 6 No. 1, pp. 1-22.

Fabozzi, F. J. (Ed.). (1998). *Handbook of portfolio management*. New Hope, PA: Frank J. Fabozzi Associates.

Freeman, D.F., & The Council on Foundations (1991). *The handbook on private foundations* (revised ed.). New York: The Foundation Center.

Gallagher, J.G. (March/April 2003). Legal brief: been down so long, it looks like UMIFA to me. *Foundation News and Commentary*, Vol. 44, No. 2, p. 1)

Greene, D.M. (Ed.). (1992). *College and university business administration*, Vol. 2 (5th ed.). Washington, DC: National Association of College and University Business Officers.

Haight, G. T., & Morrell, S. O. (1997). *The analysis of portfolio management performance: an institutional guide to assessing and analyzing pension fund, endowment, foundation, and trust investment performance*. New York: McGraw-Hill.

Harvard Business School. (1992). The Harvard Management Company. Document Number 9-292-094. Boston, MA: Harvard Business School.

Harvard College President and Fellows. (2001). The early history of Harvard University.

http://www.news.harvard.edu/guide/intro/index.html

Harvard Management Company. (2002). Unpublished, internal documents given to the author, including an abridged organizational chart, various exhibits regarding investment holdings, the policy portfolio, and the composition of the Harvard Management Company Board of Directors.

Harvard University. (2002). Fiscal 2002 annual financial report.

Haurwitz, R.K.M. (2002, September 30). In the eye of an investment storm: ups and downs of managing universities' portfolio don't faze financier. *Austin American-Statesman*, p. A1.

Hopewell, L. (Winter, 1994). Common mistakes of fiduciaries responsible for investments. *The Journal of Investing*, pp. 46-50.

Ippolito, R. (1989). Efficiency with costly information: a study of mutual fund performance, 1965-1984. *Quarterly Journal of Economics*, Vol. 104, No. 1, pp. 1-23.

Jacobson, R. (1996, Fall). Coping with volatility. Horizons, *Fidelity's Retirement News Magazine for Non-Profits*, 8, pp. 19-21.

Jaeger, L. (2002). *Managing risk in alternative investment strategies*. London: Prentice Hall Financial Times / Pearson Education Limited.

Jensen, M. (1968). The performance of mutual funds in the period 1945-65. *Journal of Finance*, 23, pp. 389-416.

King, W.E. (2001). Duke University: A brief narrative history. Durham: Duke University http://www.lib.duke.edu/archives/history/narrativehistory.html

Klinger, D. (February 2000). A double digit decade. *Business Officer*. National Association of College and University Business Officers.

Lagemann, E.C. (Ed.). (1999). *Philanthropic foundations: new scholarship, new possibilities*. Bloomington, IN: Indiana University Press.

Land, W.G. (Ed.). (1936). *Harvard University handbook: An official guide to the grounds, buildings, libraries, museums, and laboratories, with notes on the history, development and activities of all departments of the University*. Cambridge: Harvard University Press.

Lenington, R.L. (1996). *Managing Higher Education as a Business*. Phoenix, AZ: Oryx Press.

Leslie, D.W. & Fretwell, E.K. Jr. (1996). *Wise moves in hard times: creating and managing resilient colleges and universities*. San Francisco: Jossey Bass Publishers.

Maginn, J.L. & Tuttle, D.L. (Eds.) (1983). *Managing investment portfolios: A dynamic process*. Boston: Warren, Gorham, & Lamont.

Markowitz, H.M. (1956). Portfolio selection. Unpublished doctoral dissertation, University of Chicago.

Massey, W.F. (1990). *Endowment: perspective, policies, and management*. Washington, DC: Association of Governing Boards of Universities and Colleges.

Mather, C. (1702/1820). The history of Harvard College. *Old South leaflets*. No. 184

Maynard, R. (1996). *Back to basics: the case for fundamental pension management. How to manage risk and maximize returns: strategies for pension plans, endowments, and foundations nationwide*, pp. 56-66. New York, NY: Investors Press, Inc.

McIlnay, D.P. (1991). *Foundations and higher education: dollars, donors, and scholars*. Baldwin Place, NY: George Kurian Books.

Morrell, L.R. (1995, March-April). Setting an endowment spending rate. *Trusteeship*, pp. 21-25.

Morrell, L.R. (1996, May). Success in investing: integrating spending policy into asset allocation strategy. *NACUBO Business Officer*, pp. 37-41.

Murray, R.F. (1986). Measuring Fund Performance. In C.E. Kittell (Ed.), *The challenges of investing for endowment funds*, pp. 64-65. Boston, MA: The Institute of Chartered Financial Analysts.

National Association of College and University Business Officers (1980). Uniform Management of Institutional Funds Act. *NACUBO Administrative Service: Supplement*, Vol. 2, No. 2. Washington, DC: National Association of College and University Business Officers.

National Association of College and University Business Officers (1992). Selected policies for the management of long-term financial assets of colleges and universities. Washington, DC: National Association of College and University Business Officers.

National Association of College and University Business Officers (1997). 1996 NACUBO endowment study. Washington, DC: Cambridge Associates, Inc.

National Association of College and University Business Officers (2000). 1999 NACUBO endowment study. Washington, DC: Cambridge Associates, Inc.

National Association of College and University Business Officers (2003). 2002 NACUBO endowment study press release. Washington, DC: Cambridge Associates, Inc.

Nettleton, M.B. (1986). The impact of spending rules on endowments. In C.E. Kittell (Ed.), *The challenges of investing for endowment funds*, pp. 10-20. Boston, MA: The Institute of Chartered Financial Analysts.

Patton, M.Q. (1990). *Qualitative evaluation and research methods*, (2nd ed.). Newbury Park, California : Sage Publications.

Princeton University. (1970). *The definition of endowment income*. Princeton, NJ: Princeton University. (ERIC Document Reproduction Service No. ED 051 765).

Rudolph, F. (1962/1990). *The American college and university: A history*. Athens, Georgia: University of Georgia Press.

Russell, S.S. (1994). *The asset allocation pie: Duke's long-term big slice of alternative investments. Filling the vacuum: alternative investments for pension plans, endowments, and foundations*. Washington, CT: Investors Press.

Schneider, W., Dimeo, R., & Cluck, D.R. (1997). *Asset management for endowments and foundations: improving investment performance and reducing management costs*. New York: McGraw-Hill.

Scheurich, J.J. (1997). *Research method in the postmodern*. London: Falmer Press.

Sharpe, W.F. (1991, January-February). The arithmetic of active management. *Financial Analyst Journal*, pp. 7-9.

Shook, R.J. & Shook, R.L. (1990). *The Wall Street dictionary*. New York: New York Institute of Finance.

Sias, P.M. & Jablin, F.M. (1995, September). Differential superior-subordinate relations, perceptions of fairness, and coworker communication. *Human Communication Research*, Vol. 22, pp. 5-38.

Soley, L. C. (1995). *Leasing the ivory tower: the corporate takeover of academia*. Boston: South End Press.

St. Goar, J. (1996, December-January). Why in-house management still makes sense. *Plan Sponsor*, pp. 28-35.

Storrs, D.K. (1986). The role and responsibility of trustees and consultants. In C.E. Kittell (Ed.), *The challenges of investing for endowment funds*, pp. 55-58. Boston, MA: The Institute of Chartered Financial Analysts.

St. Pierre, E.A. (1999, June). The work response in ethnography. *Journal of Contemporary Ethnography*, Vol. 28 No 3, pp. 266-87.

Swensen, D.F. (1994). In J.R. Squires (Ed.), Investment policy: seminar proceedings pp. 30-40. The proceedings of the sixth annual joint SAAJ-AIMR seminar, which was held April 18-20, 1994, in Tokyo, Japan.

Swensen, D.F. (2000). *Pioneering portfolio management*. New York: The Free Press.

Synodinos, J. (1992, November-December). An endowment philosophy: to flourish, every campus endowment needs a comprehensive endowment management plan. *Currents*, pp. 23-25.

Takahashi, D. (1996). Alternative assets: pros and cons for endowments and foundations. Proceedings of the AIMR seminar Managing Endowment and Foundation Funds, pp. 78-86, which was held March 25-26, 1996, in Philadelphia, PA.

Tobin, J. (1974). What is a permanent income? *American Economics Review*, 64 (May). pp. 427-432.

University of Texas Investment Management Company (2002a). 2001 Annual report: time tells the story. Austin, TX: UTIMCO.

University of Texas Investment Management Company (2002b). History of the Permanent University Fund 1876 - present. Austin, TX: UTIMCO.

University of Texas System (2002a, September). UTIMCO board unanimously approves new public information policy. Austin, TX: UT System.

University of Texas System (2002b, October). UTIMCO makes investment returns data available. Austin, TX: UT System.

University of Texas System (2003, October). UT System Budget Summary. Austin, TX: UT System.

Welch, L.W. (1991, December). How the prudent investor rule may affect trustees: arguments raised by litigants, decisions reached by courts, and statutory revisions by states will be influenced by the restatement. *Trusts & Estates*, p. 15-25.

Whitmire, R.E. (1975). Institutional investment management model: long-term goals, strategy, and short-term adaptive operations. Unpublished doctoral dissertation, The University of Texas at Austin.

Williamson, J.P., et al. (1975). Funds for the Future: Report of the Twentieth Century Fund Task Force on College and University Endowment Policy. New York: McGraw-Hill.

Williamson, J.P. (1993). *Funds for the future*. Westport, CT: The Common Fund Press.

Vita

Michael Jackson Craigue was born in Beaumont, Texas on October 5, 1964, the son of JoAnn Jackson Craigue and William Norman Craigue. After completing his work at Beaumont-Charlton Pollard High School, Beaumont, Texas, in 1983, he entered the University of Dallas in Irving, Texas. He received the degree of Bachelor of Arts in Politics from the University of Dallas in May 1987. In September 1987 he entered the Graduate School of the University of Dallas in Irving, Texas. He received the degree of Master of Arts in Politics from the University of Dallas in May 1989. He entered the College of Liberal Arts of the University of Texas at Austin in September 1989. He received the degree of Master of Arts in Government from the University of Texas in 1995. In September 1995 he entered the College of Education of the University of Texas at Austin.

His professional career includes work as an Admissions Counselor for the University of Dallas; Assistant Registrar for Concordia Lutheran College;

Director of Computer Services for Concordia Lutheran College; Director of Financial Assistance for Concordia University; and Computer Programmer for: the University of Texas, the University of Texas System, the Office of the Attorney General of the State of Texas, and the University of Texas Investment Management Company (UTIMCO). He works as a computer programmer for Dell Computer Corporation in Round Rock, Texas.

Permanent address: 2708 Eastside Drive, Austin, Texas 78704

This dissertation was typed by the author.